



FLIGHT

&

The AIRCRAFT
ENGINEER.



First Aero Weekly in the World.
Founder and Editor: STANLEY SPOONER.
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EDITORIAL COMMENT.

"Newspapers are an essential part of our war organisation."—
(Sir Auckland Geddes, Minister of National Service.)



In these days, when we have eighty Ministers of various Government Departments, possessing an aggregate personnel surpassing the First Hundred Thousand raised by Kitchener, and costing the British citizen six pence in the pound on his Income Tax, and when our success in this war of machinery, particularly in face of the loss to us of Russian manpower, renders it more and more essential that we should endeavour to economise infantry to the utmost, and defeat the Huns as much as possible by the employment of machinery, those responsible Government officials who can devise better ways than any hitherto employed of rendering machinery more and yet more effective are deserving of the thanks and moral support of the community. Such a case appears to us to be provided in a new policy evolved by Colonel J. G. Weir, brother of the brilliant Air Minister, and himself Controller of the Technical Department of the Air

Board. Thus, in regard to so vital a matter as aircraft engines, hitherto the designers and makers of these essential munitions of war have been able to ascertain only at second hand how their standardised products answer in service. Various branches of the Technical Department at Headquarters have undertaken to look after this work, to evolve modifications, to issue drawings concerning them, and to carry out the hundred and one details inevitable in the case of a campaign in which anything connected with mechanism must necessarily be in a state of perpetual flux or development. Obviously, adequately to do such work as is indicated would require a technical staff at Headquarters as numerous as those possessed by the aggregate of all the aircraft engine producing firms in the country, and would, besides, demand the marshalling of an equal combination of brains. 'On the face of it that is impracticable. That is no theory. The thing has been tried and found wanting. Now a new policy is being embarked on whereby each maker concerned with a given type of engine, let us suppose, will be required to follow it right through, including its performances with the Forces in the various theatres of war. Thus, there will be no delay in those responsible for design and producing coming by knowledge of the weaknesses, or points of improvement desirable in any given engine. At the earliest moment the men who can devise those forms of mechanism will be able to seize each opportunity as it comes along, further to develop the given type, altogether apart from giving attention to remedying any weaknesses that might conceivably be associated with it. Though, unfortunately, the majority of the aircraft engine makers in any country do not originate them, whereby it follows that usually the originating firms are each responsible for more than one model, it must not be concluded, therefore, that those originating firms would be called on each to follow the history in the field of a variety of engine types. On the contrary, no one firm would attend in that fashion to the failures and evolution of more than one type of engine at a time. The methods by which this is ensured are as ingenious as they are effective, and they should meet with the approval of all producers. This getting immediately into direct touch, moreover, is calculated to remedy at the earliest moment all unsatisfactoriness in service, such as may be due to lack of understanding of the particular piece of mechanism either as manifested in incorrect installation, or by way of wrong methods

of maintenance. Matters have been taken to such a stage now that each engine becomes a study in itself.

It is no secret that half the faults which develop in service could be avoided if everybody associated with each engine in any capacity absolutely understood the peculiarities of the given type. In other words, the new policy is calculated to save manpower and engine wastage, as well as to make for progress at an accelerated rate. It is an example of departmental broad mindedness and enterprise which is worthy of general encouragement. So much criticism has necessarily been levelled at Government Departments during this campaign that it is a pleasure to be able to put on record this phase of policy, which is alike original and all to the gain of the Allies' purpose of defeating the Hun.

It is passing curious that most of the newspapers appear to have missed the significance of the *communiqués* issued by the Press Bureau relative to bombing operations in Germany carried out by the "Independent Force, R.A.F." Some months ago, when we were hammering away at the vital necessity for constituting the Air Service as a separate and distinct force, apart from the Navy and Army, in answer to certain criticisms we outlined in detail the proper organisation, as we saw it, of such a Service. This was divided for purposes of war under three heads. First, there was the Naval wing, which would operate under the Commander-in-Chief of the Fleet; second, there was the military wing which would be placed under the orders of the commander of the Expeditionary force. The duties of these two wings were defined as being mainly tactical, to the extent that their work would be practically confined to assisting the operations of the Fleet and Armies without regard to what may be called the wider issues of air strategy. That is to say, they would stand in the same relation to the military and naval forces as ships detached to assist in military operations do in relation to the military forces employed to effect the major objects of the campaign. As we then pointed out, air strategy has no more in common with military or naval operations than the strategy of the war at sea has with the conduct of operations ashore, save that the uniform object is to defeat the enemy. Our contention, then, was that there must be a third branch of the Air Service, whose functions should be mainly strategical, but that for the purposes of the present war, it should not be formed until we had overtaken the requirements of the Navy and Army, in the matter both of aircraft and *personnel*. The business of this third branch was to be separate entirely from that of the other two, inasmuch as its first object should be to carry the strategic war into the enemy's country, and that this part of warlike operations should remain under the control of the Air Council and its advisers. Naturally, the Air Council would act in this matter in consultation with the General Staff of the Army and with the Admiralty in the same manner as these two bodies act together in relation to the strategy of the war as a whole.

What is obvious from the references to the "Independent Air Force" is that the point of view outlined in these pages many months ago is the one adopted by the Air Council, and that the "Independent" arm is that strategic branch of which we have spoken. There is nothing at all surprising in the fact that such

a striking force should have been constituted as soon as it was possible to spare the machines and the men to arm it. To anyone who has given the subject of war in the air more than a passing study it was perfectly obvious that the development of aircraft and their vastly increased range must lead to their employment as a strategic arm. It was becoming increasingly evident that the time had gone by when the functions of aircraft were confined to tactical reconnaissance and artillery observation over the enemy's lines, and as soon as that fact was established it was inevitable that what we must call the third branch of the Air Service should be constituted and put to work. There is one last aspect of the institution of the "Independent Force" which is worth noting. As we laid down when the initial discussions were taking place, for the purposes of the present war the tactical considerations had, of necessity, to take precedence of the mainly strategical. That is, the needs of the armies overseas and of the Fleet had to be fulfilled and provided for in advance before the constitution of the Independent Force could be entertained for a moment. The fact, then, that it has been so constituted and is being actively employed, is strong evidence that production is now within measurable distance of our requirements.

The Work of the Parliamentary Air Committee.

At a meeting held at the House of Commons last week the following resolutions were unanimously passed:—

1. That this committee desires to reiterate its grave anxiety as to the arrangements for the construction and supply of sufficiently high-powered machines for next year's campaign.
2. That this committee desires to reiterate its grave anxiety at the heavy loss of life in training pilots in this country, and the inadequate medical service, and will be glad to know whether the Secretary of State will confer with them on the subject.
3. That this committee feels that the question of Loch Doon aerodrome cannot be allowed to remain in its present inconclusive position, and that further investigations should be undertaken by the War Office Sub-Committee of the Select Committee on National Expenditure, with a view to fixing responsibility for such unwarrantable waste of public time, labour, and money.
4. That this House considers that the position of the Secretary of State for Air without a seat in either House of Parliament is highly unconstitutional and requests the Government to provide a day for the immediate discussion of a resolution on the subject.

So far as concerns the last, almost at the time the resolutions were being passed the announcement that Sir William Weir had been elevated to the peerage was being issued to the Press. The anomaly to which attention is drawn by the resolution has, therefore, very properly ceased to be. While we are on the subject, we may, perhaps, be allowed to tender our congratulations to the Secretary of State for the Air on the honour conferred upon him.

The Committee does well to express anxiety as to the output of machines for next year's campaign. As we have remarked in a previous paragraph, the evidence would tend to show that production has reached a fairly satisfactory standard, but if there is one thing we dare not ignore more than another it is that the enemy is making a maximum effort to get on terms with us, and the least slackening of our own corresponding effort may well enable him to again wrest the supremacy of the air from us. It is well that we should feel that our position in the air is good, but it would be the deadly sin to allow that comfortable feeling to betray us into any slackening

of effort. Indeed, the stronger we are relatively to the Germans the greater incentive there should be for us to stress every productive facility we have to the end that we may turn what is, after all, no more than definite superiority into overwhelming supremacy.

Then, with regard to the resolution apropos the Loch Doon aerodrome, we must express our satisfaction that the Parliamentary Air Committee does not mean to let the matter rest where it is. We have, in a previous issue of "FLIGHT," already expressed our own views on the subject, so that there is no need for us to do more than emphasise our agreement with the views of the Committee. The responsibility for the fiasco must be fixed, and the incompetents who may be convicted of one of the grossest wastes of public money on record must be punished at least to the extent that never again may they be entrusted with the expenditure of public funds. Lastly, in the matter of Resolution 2, relating to the loss of life among training pilots in this country. With the Committee, we deplore the tale of losses among the gallant men who volunteer for the war in the air, but we fear that ways and means of lessening the tale of casualties will be found difficult of discovery. It is, perhaps, to be doubted if even the Air Committee, which has made the subject its own, and which has done such a great amount of good work for the Air Services, can realise the magnitude of the operations by air which this war has given birth to. Certainly, we ourselves, closely as this journal has always been identified with the Air Services, even find it a little difficult to follow the full measure of those Services. For one thing, it is obvious that no-one outside the inner circles of the Air Council has any opportunity of knowing how many pilots are under training at a time, or of how many miles they fly daily. When, after the war, the full magnitude of the thing is made known, there will be astonishment at those numbers and the total of miles flown. As we have always insisted, not only during the war, but before its outbreak, there is only one manner in which the risks of flying can be properly assessed, and that is by the tale of accidents in comparison with the mileage flown. If that is so in peace time, it is even more the case now, and unless we are able to make the comparison all criticism of methods is illusive and beside the point. There is another aspect which is worth mentioning, and that is that the exigencies of war have led us into an intensive system of training which has undoubtedly increased the danger to both pupils and instructors. It cannot be helped—it is one of the prices we have to pay for the Admiralty of the Air. Still, we are in agreement with the Committee in drawing attention to the subject, and in asking the Secretary of State to meet them on it. If such a meeting—which, by the way, has now been held—serves no other end, it will probably convey to the Committee an assurance that every possible precaution is taken to make the instructional courses as safe as possible under the arduous conditions of training for war flying.

**The
Secretary
of State
and
M.Ps.**

Following the example of the late Lord Kitchener, the new Secretary of State for Air, has inaugurated his appointment by taking into his confidence regarding the work of his Department, the members of the House of Commons. The pro-

ceedings took place in one of the Grand Committee Rooms of the House, under the presidency of the Chairman of Committees, Mr. J. H. Whitley, and a large gathering of members attended. The Secretary of State spoke for over an hour, and at the end of his speech it was agreed that what he had told the meeting was of the first importance, and calculated to save members the trouble of asking a great many questions in the House. Naturally, we know nothing of what Sir William Weir—we are compelled to use his older title in the meantime—said to the assembled members, nor does it particularly matter. The principal thing is that an excellent precedent has been established, and, it may be hoped, will be followed up from time to time. If it has no other effect than that of keeping down to a minimum the questions to be asked across the floor of the House it will be an excellent thing. Nothing is more provocative of questions than a real or supposed policy of secrecy, and it is obvious that the greater the number of questions the more risk there is of information leaking out that may be of use to the enemy. Agreed that the methods of question and answer are often the only ones for keeping Government departments up to the mark, and for that reason we should be sorry to see the system stifled altogether, but there is no doubt the number of questions put to Ministers leads to a shocking waste of the time of the House, which the method of occasional Ministerial explanations such as that of Sir William Weir should assist in saving. If certain of his colleagues would follow his example it might be to the general benefit of the House and country.

**The
Aeronautical
Society.**

The Report of the Council of the Aeronautical Society of Great Britain has just been issued, and shows that a considerable amount of progress has been made and valuable work done during the year under review. In January, 1917, the membership of the Society stood at no more than an effective number of 297. At the time of issue of the Report this had increased to 772, and was still growing rapidly—so rapidly, in fact, that the Council confidently looks forward to passing the 1,000 before the end of the current year. Not only, says the Report, is the progress indicated by these figures to be regarded as satisfactory, but it is possible to view with even greater pleasure the quality of the new adherents to the Society's ranks, including as they do many of those whose names have in recent years been prominent in the administrative or engineering branches of aeronautics in this country and the United States. On the technical side of the Society, the improvement has been specially marked. The number of Fellows and Associate Fellows has increased from 79 to 226, and as these are the official qualifications for aeronautical engineers, the Society is certainly to be congratulated upon having become the recognised professional institution of this branch of engineering science. Further, the student members of the Society have increased at an even greater rate, and as these are the Fellows and Associate Fellows of the future the progress made must be very gratifying to the Council.

One of the most important events of the Society's year was the action of the Government in forming the Civil Aerial Transport Committee to report upon the possibilities of commercial aviation after

the war. The terms of reference were very wide and included aeronautical research and education, in addition to other matters in which the Society is specially interested. In fact, the discussions of this Committee have had such a bearing on the activities of the Society and of the Society of British Aircraft Constructors that development along the lines of commercial transport have been deferred until after the Committee shall have made its report, an event which appears likely to take place very shortly.

In every sphere of its manifold activities the Society has made most satisfactory progress during the year covered by the Report, and it only remains for us to congratulate the Council upon the eminently sound and satisfactory state in which the Society finds itself at the end of what has undoubtedly been its most successful year of existence, and upon its having thoroughly earned the Royal prefix which has now been conferred by the King.

Capital and Labour and the Government.

The Industrial Reconstruction Council, to whose work we have referred in the past, has recently issued a manifesto on the relations between Capital and Labour and the Government, in which it is set forth that co-operation between Capital and Labour is undoubtedly the most urgent industrial question of the day, and proceeds to the suggestion that the Government should adopt a uniform practice in all industrial and commercial matters of consulting joint bodies representative of both employers' and work-peoples' organisations. It is the view of the Council that no industrial or commercial question should interest the Government unless it also interests both Capital and Labour. The union between the two in the discussion of any matter which arose would materially strengthen the position of a trade against unnecessary restrictions, and on the other hand any

orders made by the Government on the joint advice of both parties would be more likely to find general acceptance. Illustrations might be multiplied almost indefinitely. There must be many hundreds of trade committees in negotiation with different Government Departments at the moment, and each case represents an ideal opportunity for practical co-operation between employers and employed. The effect of such a union on these committees would undoubtedly be to spread a different spirit throughout the industrial world. As the Council points out, the opportunity for the suggested union of interests will pass with the cessation of war, because the relations between the Government and industry will become less intimate, and the Council therefore presses for an immediate acceptance of the principle: "That any commercial or industrial matter ought not to interest the Government unless it interests both capital and labour," and the consequent adoption of the policy that: "The Government will undertake to obtain and, wherever possible, accept advice on these matters from bodies equally representative of both labour and capital."

Undoubtedly, there is a great deal to be said for the principles involved and the Council is doing excellent propaganda work in putting them forward at the present juncture, in order that the whole industrial and trading community may have an opportunity of discussing them. True, as there is to all great reforms, there will be opposition, but where, as in the present case, the soundness of argument is on their side, their adoption is only a question of time. We need not labour the point—the principles are there to explain themselves, and, more than to say that in the abstract they have our unqualified approval, further comment is unnecessary.

In this connection the series of articles by Mr. Benn, which are now concluding in "FLIGHT," have special interest.

Peerage for Sir W. Weir.

It was announced on June 18th, that the King has been graciously pleased to approve that the dignity of a Peerage of the United Kingdom should be conferred upon the Right Hon. Sir William Weir, Secretary of State for the Air Force.

Expenditure on the Air Services.

In the course of his speech introducing the Vote of Credit in the House of Commons on June 18th, Mr. Bonar Law, Chancellor of the Exchequer, said:

"There was in the Budget Estimate, as the Committee will understand, a very large increase in the Air Service. That is a growing Service—growing, I am glad to say, with every week—and for the same reason as applies to the merchant shipping the average expenditure over the first part of the year is not likely to be equal to the average of the full expenditure over the whole year. There is a reduction in the Air Force itself of about £4,000,000. But that is entirely due to the fact that the transfer, though it has been made, has not been carried out entirely as regards accounts, and some sums have still to be paid by the Air Ministry to the War Office."

The Parliamentary Air Committee.

At a meeting of the Parliamentary Air Committee, held at the House of Commons on June 18th under the presidency of Mr. Joynson-Hicks, the following resolutions were passed:

1. The Committee view with grave concern the arrangements for the construction and supply of high-power flying machines for next year's campaign.
2. They observe with great anxiety the heavy loss of life sustained in the training of pilots in this country, and the inadequate medical service.
3. They feel that the question of the Loch Doon aerodrome cannot be allowed to remain in its present inconclusive position, and that further investigation should be undertaken by the War Office Sub-Committee on National Expenditure, with a view of fixing responsibility for such an unwarrantable waste of public time, labour, and money.

4. They consider that the position of the Secretary of State for the Air Force without a seat in either Houses of Parliament, is highly unconstitutional, and request the Government to provide a date for the discussion of a resolution on the subject.

(After the meeting it was ascertained that the Secretary of State, Sir William Weir, had been elevated to the Peerage.)

Sir William Weir Explains.

It was not surprising that members of the House of Commons turned up in full force at a meeting at the House on June 20th, at which Sir William Weir made a full and confidential statement on the organisation, equipment, and work of the Air Service. Mr. Whitley presided, and Mr. Asquith was among those present.

Honorary Adviser to the Air Ministry.

MR. FREDERICK PALMER, C.I.E., M.I.C.E., partner in the firm of Messrs. Rendel, Palmer and Tritton, consulting engineers, has accepted the invitation of the Secretary of State for the Royal Air Force to act as honorary adviser to the Air Ministry in engineering questions associated with the Department of Works and Buildings.

Saving of Irish Flax Seed.

THE Minister of Munitions has issued an Order directing every grower of flax in Ireland during the season of 1918 to save the seed from one-eighth of his crop, and to comply with any regulations that may be prescribed in this behalf by the Department of Agriculture and Technical Instruction for Ireland. The Order does not apply to any grower having under flax in the year 1918 a total area not exceeding two statute roods, nor to flax of any variety other than a fibre variety.

No person shall, without a permit issued by the Department of Agriculture and Technical Instruction for Ireland, purchase, sell, or offer for sale from or on behalf of any grower of flax or any other person, any flax on foot, or undeseeded flax straw saved for seed in compliance with the provisions of the Order.

HONOURS.

Honours for the R.N.A.S.

It was announced in a supplement to the *London Gazette* on June 21st that the King has been pleased to approve of the award of Bars to the Distinguished Service Cross to the following officers late of the Royal Naval Air Service:—

Bar to the D.S.C.

Lieut. (T. Capt.) S. T. EDWARDS, D.S.C., R.A.F.—For conspicuous bravery and most brilliant leadership of fighting patrols against enemy aircraft. On May 2nd, 1918, while leading a patrol of four scouts, he encountered a hostile formation of eight enemy scouts, and drove down one enemy machine completely out of control. Soon afterwards he engaged another formation of six enemy scouts, driving down one to its destruction, while his patrol accounted for another. He only broke off the fight owing to lack of ammunition. He has destroyed or driven down out of control many enemy machines since he was awarded the Distinguished Service Cross, and has at all times shown the greatest gallantry and a fine offensive spirit.

Lieut. (Hon. Capt.) A. R. BROWN, D.S.C., R.A.F.—For conspicuous gallantry and devotion to duty. On April 21st, 1918, while leading a patrol of six scouts he attacked a formation of 20 hostile scouts. He personally engaged two Fokker triplanes, which he drove off; then, seeing that one of our machines was being attacked and apparently hard pressed, he dived on the hostile scout, firing the while. This scout, a Fokker triplane, nose dived and crashed to the ground. Since the award of the Distinguished Service Cross he has destroyed several other enemy aircraft and has shown great dash and enterprise in attacking enemy troops from low altitudes despite heavy anti-aircraft fire.

Lieut. (Hon. Capt.) A. T. WHEALY, D.S.C., R.A.F.—For conspicuous gallantry and devotion to duty. He has proved himself to be a brilliant fighting pilot. Under his able and determined leadership his flight has engaged and accounted for many enemy machines, he himself being personally responsible for many of these.

Second Bar to the D.S.C.

Lieut. (T. Capt.) T. F. LE MESURIER, D.S.C., R.A.F.—For gallantry and consistent good work. He has at all times displayed the utmost gallantry in action, and by his determination and skill has set a very fine example to the pilots of his squadron. On April 23rd, 1918, in spite of bad weather conditions, he successfully dropped bombs on the Ostend Docks from a height of 800 ft., amidst very intense anti-aircraft and machine gun fire. He also made valuable observations. He has taken part in many bomb raids, and has destroyed or driven down out of control several enemy machines.

Awards for the R.F.C.

It was announced in a supplement to the *London Gazette* on June 22nd that His Majesty the King has been graciously pleased to approve of the following awards to the under-mentioned officers and warrant officers in recognition of their gallantry and devotion to duty in the field:—

Awarded the Distinguished Service Order.

T. Capt. FRANK GRANGER QUIGLEY, M.C., R.F.C.—For conspicuous gallantry and devotion to duty. While leading an offensive patrol he attacked a very large number of enemy aeroplanes, destroyed one of them and drove another down out of control. On the following day, while on a low-flying patrol, he was attacked by several enemy scouts, one of which dived at him. He out-manoeuvred this machine and fired on it at very close range. He followed it down to 500 ft., firing on it, and it spiralled very steeply to the ground in a cloud of black smoke. During the three following days, while employed on low-flying work, he showed the greatest skill and determination. He fired over 3,000 rounds and dropped thirty bombs during this period, inflicting heavy casualties on enemy infantry, artillery and transport.

Lieut. (T. Capt.) GEORGE EDWIN THOMSON, M.C., Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. On one occasion, encountering a number of enemy two-seater 'planes, he dived on one of these and sent it down in flames. On returning to our lines, he dived on to another enemy machine, the observer of which was seen to collapse in his cockpit, the hostile machine going down completely out of control. On the following day, observing a hostile two-seater machine, he dived on it, engaging it at 100 yards' range. On the hostile 'plane going down in a slow spin, he followed it to within 2,500 ft., but was compelled to withdraw owing to heavy machine-gun fire from the ground. He has, in all, accounted for twenty-one enemy machines, and has at all times during recent operations displayed the most marked skill and gallantry.

Awarded a Second Bar to the Military Cross.

T. Sec. Lieut. (T. Capt.) ANDREW KING COWPER, M.C., Gen. List and R.F.C.—For conspicuous gallantry and

devotion to duty. He bombed enemy troops who were entrenching, and caused great havoc and confusion. He made repeated and determined attacks, in spite of heavy hostile fire, and eventually forced the enemy to retire from their trench. He returned to his aerodrome for more bombs and ammunition, and going out a second time, attacked enemy troops and transport and threw them into confusion. He went out on two other occasions on the same day with equal success. Later, while co-operating with an infantry attack, he obtained four direct hits with bombs on an encampment, and forced several parties of the enemy to retire from their front line. He showed magnificent dash and determination. (M.C. gazetted April 22nd, 1918.) (Bar to M.C. gazetted in this Gazette.)

T. Lieut. JAMES EDMUND HIBBERT, M.C., S. Lancs Regt. and R.F.C.—For conspicuous gallantry and devotion to duty. During a low flying reconnaissance, in which he met much opposition from machine-gun and rifle fire, he attacked and destroyed enemy transport with bombs and scattered an enemy battalion with fire from his machine gun. Later, he dropped messages on our batteries, giving them the precise location of hostile bodies and bringing back valuable information. He has by his determination and untiring energy, under adverse conditions, set a magnificent example to his squadron. (M.C. gazetted June 3rd, 1916.) (Bar gazetted December 20th, 1916.)

Awarded a Bar to the Military Cross.

Lieut. (T. Capt.) FREDERIC ELLIOTT BROWN, M.C., R. Dublin Fusiliers, Spec. Res. and R.F.C.—For conspicuous gallantry and devotion to duty in attacking enemy aircraft. During an engagement between fourteen of our scouts and about forty enemy scouts he shot down two enemy machines completely out of control. On another occasion he attacked a formation of seven enemy scouts and destroyed one of them. He has destroyed two other enemy machines and driven down one other out of control. His courage and initiative have been a source of inspiration to all. (M.C. gazetted April 22nd, 1918.)

T. Sec. Lieut. (T. Capt.) PAUL WARD SPENCER BULMAN, M.C., Gen. List and R.F.C.—For conspicuous gallantry, and devotion to duty. On four successive days, when on low bombing patrol, out of a total of sixteen bombs dropped on enemy troops and transport, he obtained eight direct hits and seven others within ten yards of his objective, inflicting the most severe casualties on the enemy. Within the past fortnight, he has shot down out of control two enemy planes and has forced two others to land. He has displayed the utmost skill and gallantry, and his courage and efficiency have afforded a splendid example to his squadron. (M.C. gazetted February 4th, 1918.)

T. Sec. Lieut. (T. Capt.) ANDREW KING COWPER, M.C., Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. Within a short period he has himself destroyed three enemy planes and has driven down four others completely out of control. During the recent operations he has further destroyed two hostile machines and has attacked in the most daring manner and with the greatest effect enemy troops and transport. On all occasions his gallantry and skill have been of the highest order. (M.C. gazetted April 22nd, 1918.)

Lieut. (T. Capt.) WILLIAM RAYMOND FISH, M.C., Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. While leading a patrol in very bad weather he saw the enemy's infantry advancing in an attack on our trenches, which he knew were not strongly held. There were nine enemy scouts patrolling above their lines, but he led his patrol down immediately beneath them and under heavy machine gun fire from the ground, and concentrated his fire on the advancing enemy infantry. Largely owing to his determined and courageous action, the enemy's attack was repulsed. (M.C. gazetted in this Gazette.)

Lieut. (T. Capt.) JAMES FITZMORRIS, M.C., Highland Light Infantry and R.F.C.—For conspicuous gallantry and devotion to duty. During operations he carried out many reconnaissances at a low altitude and obtained valuable information. On one occasion, while on a bombing patrol, he saw an enemy machine attacking our troops with machine-gun fire from about 500 ft., and at once attacked it and drove it to the ground. He then attacked seven enemy scouts, one of which he drove down in flames inside our lines. He has also destroyed five other enemy machines and driven down two others out of control. He has always set a magnificent example of dash and determination. (M.C. gazetted September 26th, 1917.)

T. Capt. GERALD ERNEST GIBBS, M.C., R.F.C.—For conspicuous gallantry and devotion to duty. On one occasion he bombed an enemy aerodrome from a height of 100 ft., and, descending to 20 ft., fired 200 rounds into the hangars.

Later, on the same day, he engaged two enemy scouts and one two-seater machine, all three of which he drove down. The latter going down out of control from a height of 2,000 ft. On another occasion he pursued seven hostile scouts single-handed, one of which he succeeded in shooting down. He is a pilot of exceptional dash and resource. (M.C. gazetted March 26th, 1918.)

T. Capt. OSWALD HORSLEY, M.C., Gord. Highrs. and R.F.C.—For conspicuous gallantry and devotion to duty. He has brought down completely out of control three hostile machines, and of two others which he engaged one he fought to within a distance of 200 ft. from the ground, forcing it to land, the second spinning down to the ground out of control, he being unable to observe it crash owing to the presence of other hostile machines. He has carried out accurate and valuable reconnaissances, and has set a magnificent example of determined gallantry and skill whilst leading low-flying and bombing patrols. (M.C. gazetted October 2nd, 1916.)

T. Capt. JOHN LEACROFT, M.C., Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. During a period of six months he has destroyed four and has brought down completely out of control six hostile machines. In all he has destroyed eight enemy machines and driven down 13 out of control. On one occasion, when leading an offensive patrol, his formation destroyed six enemy planes and drove another down out of control without suffering any damage itself. He has displayed exceptional qualities as a leader, and his patrols have always been characterised by vigour and dash. (M.C. gazetted October 17th, 1917.)

Sec. Lieut. (T. Capt.) KENNETH MALISE ST. CLAIR GRAEME LEASK, M.C., Devon. R. and R.F.C.—For conspicuous gallantry and devotion to duty. He attacked a formation of five enemy scouts, one of which he destroyed. Later, he carried out a very valuable reconnaissance at a height of 100 ft. in order to locate the enemy's position. While thus engaged he observed a large column of enemy troops advancing along a road. He dived down to a height of about 30 ft. and attacked and scattered them, and held up their advance for a considerable time. He has done splendid work in attacking enemy troops from a low altitude, showing great courage, and determination under heavy fire. (M.C. gazetted March 26th, 1918.)

T. Capt. JAMES ANDERSON SLATER, M.C., Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. On one occasion during the recent operations he attacked a large formation of hostile scouts, one of which he drove down in flames. Later, during the same flight, he took part in a general engagement, in which he drove down another enemy machine completely out of control. Two days later he attacked two enemy scouts, causing one of them to crash to earth. In 18 days he has engaged in 25 combats at close quarters, shooting down eight hostile machines. His great gallantry and fine offensive spirit have inspired all ranks to a very high degree. (M.C. gazetted February 4th, 1918.)

T. Sec. Lieut. (T. Capt.) DAVID ARTHUR STEWART, M.C., Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. During the past month, when engaged with superior numbers of enemy aircraft, he has destroyed four hostile machines, all of which were seen to crash by other observers. He has in addition carried out nine successful reconnaissances, as a result of which he has returned with information of the greatest value. He has displayed the greatest courage and determination at all times on his many low flying and bombing attacks on hostile troops and transport. (M.C. gazetted April 22nd, 1918.)

T. Capt. JOHN LIGHTFOOT TROLLOPE, M.C., Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. On one occasion during the recent operations, while on offensive patrol, he encountered three enemy machines, two of which he completely destroyed. He then attacked a scout, and after firing 100 rounds into it, the enemy machine went down completely out of control, ventually crashing. Later in the same day, on his flight encountering four enemy two-seater planes he sent three of them down crashing to earth. Within a month previous to this he fought two hostile formations, numbering 12 machines in all, single-handed, and did not break off the engagement until he had driven off all of them towards the East. He has accounted for 14 enemy machines, and has rendered exceptionally brilliant service by his gallantry and determination. (M.C. gazetted May 13th, 1918.)

Lieut. (T. Capt.) WILLIAM LEWIS WELLS, M.C., Middlesex Regt. and R.F.C.—For conspicuous gallantry and devotion to duty. He frequently attacked enemy troops and transport with bombs and machine gun fire during operations, often flying at a very low altitude under heavy fire. While attacking enemy troops from a height of 150 ft. he was severely wounded, but succeeded in bringing his observer and machine

back safely. He has destroyed five enemy machines and driven down five others out of control, and has always set an example of courage and determination to the flight which he has commanded. (M.C. gazetted May 13th, 1918.)

Capt. RICHARD NIGEL WOLTON, M.C., R.F.A. and R.F.C.—For conspicuous gallantry and devotion to duty. On discovering bodies of the enemy descending from motor lorries at a certain point behind the front, he sent down a wireless call, and having used his bombs and ammunition, he landed and reported to headquarters. He then went up again and dropped messages to several of our field batteries, with the result that heavy casualties were inflicted on the enemy. On the following day, noticing some hostile bodies crossing the bridges and failing to receive any answer from his wireless calls, he landed by the side of one of our siege batteries and personally directed the fire of the guns on to the enemy. His information has at all times been most reliable, and his work in co-operation with the artillery was of exceptional value. (M.C. gazetted March 26th, 1918.)

T. Capt. HENRY WINSLOW WOOLLETT, M.C., R.F.C.—For conspicuous gallantry and devotion to duty. On one occasion, when on offensive patrol, he dived on to an enemy plane, which was attempting to cross our lines, and fired 100 rounds into it at 100 yards range, causing it to burst into flames and crash to the ground. He then dived on to another hostile machine, which went down in a spin and finally crashed to earth. On a later occasion he attacked and brought down in flames two enemy observation balloons. The gallantry and skill exhibited by this officer have been most inspiring to his flight. (M.C. gazetted September 26th, 1917.)

Lieut. FREDERICK ROBERT MCCALL, M.C., Canadian Infantry and R.F.C.—For conspicuous gallantry and devotion to duty. Whilst engaged on photographic work, he observed a hostile scout, on which he dived and fired a burst from his machine-gun. The enemy machine went down in a steep dive out of control. On a later occasion he engaged two hostile two-seater planes, which immediately turned East. Though a steady rate of fire was kept up against him, he continued the attack, during which the observer of one of the hostile machines collapsed in the cockpit, other observers reporting that this machine crashed to earth in the enemy lines. He has always displayed the greatest gallantry and determination in carrying out his work, and has set a very high example to his squadron. (M.C. gazetted March 4th, 1918.)

Capt. ROY CECIL PHILLIPPS, M.C., Australian F.C., attd. R.F.C.—For conspicuous gallantry and devotion to duty. When engaged with hostile aircraft during the recent operations, he has destroyed three enemy machines, and has in addition brought down two hostile planes out of control. He has also brought back accurate and valuable information regarding hostile movements under the most adverse conditions, particularly on one occasion, when he flew through a heavy barrage at a low altitude behind the enemy's lines. He has shown conspicuous skill and determination when escorting low-flying bombing patrols. (M.C. gazetted February 4th, 1918.)

Awarded the Military Cross.

T. Sec. Lieut. HADDON CLIFFORD ADAMS, R.F.C.—For conspicuous gallantry and devotion to duty. Whilst on contact patrol, he was attacked by seven hostile scouts, and by skilful manoeuvring he enabled his observer to shoot one of them down in flames. During the same flight he was attacked by 10 hostile machines, which made repeated dives at him. He handled his machine with great coolness and skill, and finally he and his observer drove down one of the enemy machines in flames. Later, while engaged in photographic work, he was attacked by a formation of 20 hostile scouts. He beat off their attacks with great skill and enabled his observer to shoot down one of the enemy machines, which burst into flames and broke into pieces. He has shown magnificent courage and resource on many occasions.

T. Sec. Lieut. ARTHUR ALISON MACDONALD ARNOT, R.F.C.—For conspicuous gallantry and devotion to duty. When engaging hostile troops with bombs and machine-gun fire, he was attacked by a large number of enemy aircraft. He engaged the hostile machines in a most gallant manner, one of which he destroyed. On a previous occasion he shot down another enemy plane, which fell in flames. During the last four months he has carried out offensive patrols at very low altitudes under adverse weather conditions with conspicuous skill and success.

Sec. Lieut. ALFRED CLAYBURN ATKEY, R.F.C., Spec. Res.—For conspicuous gallantry and devotion to duty. When engaged on reconnaissance and bombing work, he attacked four scouts, one of which he shot down in flames. Shortly afterwards he attacked four two-seater planes, one of which he brought down out of control. On two previous occasions his formation was attacked by superior numbers of the enemy,

three of whom in all were shot down out of control. He has shown exceptional ability and initiative on all occasions.

Lieut. EDWARD CAMPBELL BATCHELOR, R.F.A. and R.F.C.—For conspicuous gallantry and devotion to duty. When attacked three times by a hostile formation and though wounded in the arm, he continued to work his gun and succeeded in shooting down two enemy machines, which vanished in the clouds spinning. An observer reported that at this time and place he saw two enemy machines burst into flames and crash to earth. By his coolness and skill on this occasion he saved his machine and pilot. On a later occasion, on seeing two hostile scouts above him, he attacked and shot down one of them, which eventually crashed to earth. His gallantry and valuable services have been most marked.

T. Sec. Lieut. ANDREW WEATHERBY BEAUCHAMP-PROCTOR, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. While on offensive patrol he observed an enemy two-seater plane attempting to cross our lines. He engaged it and opened fire, with the result that it fell over on its side and crashed to earth. On a later occasion, when on patrol, he observed three enemy scouts attacking one of our bombing machines. He attacked one of these, and after firing 100 rounds in it, it fell over on its back and was seen to descend in that position from 5,000 ft. He then attacked another group of hostile scouts, one of which he shot down completely out of control, and another crumpled up and crashed to earth. In addition to these, he has destroyed another hostile machine, and shot down three completely out of control. He has at all times displayed the utmost dash and initiative, and is a patrol leader of great merit and resource.

T. 2nd Lieut. WILFRED BEAVER, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. During the last five months he has destroyed five hostile machines, and has brought down completely out of control six others. During the recent operations he has performed exceptionally good work in bombing and firing upon hostile troops from very low altitudes. He has displayed marked gallantry and resource, and has proved himself a patrol leader of great dash and ability.

Lieut. JOHN MILLER BRISBANE, R. Scots, attached R.F.C.—For conspicuous gallantry and devotion to duty. When on a low-flying and bombing patrol, he engaged four hostile scouts, one of which he destroyed. Later, on four enemy two-seater planes attacking his patrol, he shot one of them down completely out of control. On the following day, when returning from a low bombing reconnaissance, his machine was attacked by twelve hostile scouts. He fired several hundred rounds into one of these, and it was seen to crash to earth. He is a patrol leader of great dash and vigour.

T. Sec. Lieut. DOUGLAS CHARLES MORRIS BROOKS, R.F.C.—For conspicuous gallantry and devotion to duty. During the recent operations he succeeded, despite the most adverse climatic conditions, in completing a long-distance reconnaissance over the enemy's lines, returning with the most valuable and important information. Previous to this he had brought down completely out of control one hostile machine. He has displayed great gallantry and determination, and has rendered services of great value.

Sec. Lieut. (T. Capt.) ALFRED JOHN BROWN, R. Sussex Regt. and R.F.C.—For conspicuous gallantry and devotion to duty. While on patrol work he and his patrol attacked two enemy two-seater machines, one of which was driven down out of control, the other being seriously damaged. On the following day he attacked a hostile reconnaissance machine, which he forced to land in our lines. On a later occasion, he volunteered to attack a hostile aerodrome in foggy weather. He dropped four bombs from a height of 200 ft. which blew in the sides of one of the hangars, and then attacked horse and motor transport on the road, finally engaging enemy troops in the main street of a village with machine-gun fire. He has shown great skill and daring as a leader of offensive patrols.

T. Sec. Lieut. WILLIAM HENRY BROWN, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. Whilst bombing an enemy aerodrome his squadron was attacked by a formation of forty enemy scouts. He engaged one of these with the result that it dived straight to the ground. He was then attacked by another machine, and by skilful piloting he succeeded in firing at close range behind its tail, with the result that it fell on its back and went down out of control. Later, whilst leading a low-flying attack on enemy troops he dropped four bombs from a very low altitude, scattering the enemy in all directions, and then at a height of 300 ft. engaged them with machine-gun fire. Shortly afterwards he attacked two enemy two-seater planes, crashing them both to earth. In addition to these he has shot down out of control four other hostile machines, and has displayed throughout the recent operations marked gallantry and skill.

T. Capt. ROBERT EDWARDS BRYSON, Gen. List and R.F.C.

—For conspicuous gallantry and devotion to duty. When on contact patrol work he was subjected to the most severe machine-gun and rifle fire from the ground, and received a serious wound. Despite this, and the most adverse weather conditions, he succeeded in locating the enemy positions, landing his machine safely behind our lines, and bringing back most valuable information. By his disregard of personal danger and unflinching devotion to duty he has set a splendid example to all ranks.

T. Sec. Lieut. JAMES GODFREY BURCHETT, R.F.C.—For conspicuous gallantry and devotion to duty. During ten days' operations he showed splendid courage and skill in carrying out reconnaissances and contact patrols at low altitudes and under heavy rifle and machine-gun fire. He obtained valuable information as to the enemy's movements, and attacked enemy troops and transport with machine-gun fire. He also bombed enemy batteries with excellent results.

T. Capt. ROY WILLIAMSON CHAPPELL, R.F.C.—For conspicuous gallantry and devotion to duty. He showed the greatest skill and courage in leading patrols, with the result that during four days' operations the formations which he led destroyed nineteen enemy aeroplanes and drove down several others, the fate of which was not observed, owing to the intensity of the fighting. He has destroyed altogether five enemy machines, and has driven down seven others out of control.

Lieut. HUGH ARTHUR CHIPPINDALE, R.F.A., att'd. R.F.C.—For conspicuous gallantry and devotion to duty. While carrying out a reconnaissance, he and his pilot were attacked by eleven hostile scouts. They succeeded in destroying one of these, drove off the remainder, and then completed the reconnaissance. Later, when information was urgently needed during an engagement, he and his pilot carried out a most successful reconnaissance, flying at a very low altitude under continuous rifle and machine-gun fire from the ground. They located hostile batteries, and enabled very effective counter battery work to be carried out, and also engaged ground targets with bombs and machine-gun fire. He showed splendid courage and skill.

T. Sec. Lieut. PERCY JACK CLAYSON, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. When on low flying offensive patrol, he engaged an enemy scout and shot it down, with the result that it crashed to earth. He has brought down several enemy machines, one of which he forced to land in our lines, and has engaged massed enemy troops and transport from very low altitudes with machine-gun fire, inflicting heavy casualties. He has displayed the most marked determination, courage and skill.

T. Sec. Lieut. EDWARD ARNOLD CLEAR, Gen. List, R.F.C.—For conspicuous gallantry and devotion to duty. During an encounter between one of our patrols and nine enemy machines, he observed an enemy triplane which was about to attack his patrol leader from the rear. He at once dived to the attack, firing on the enemy machine, which turned to avoid him and collided with an enemy scout. The two enemy machines crashed to earth locked together. On the following day, during an engagement between twelve of our machines and about thirty enemy scouts, he attacked an enemy triplane which he observed beneath him. He dived after it, and, following it down, eventually destroyed it. He has destroyed seven enemy machines, and has proved himself a most enterprising and courageous pilot.

T. Capt. JEAN PIERRE COLIN, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. When on a special reconnaissance of enemy troops at a very low altitude, he took numerous valuable photographs, dropped bombs on a battery of artillery proceeding along a road, the majority of the horses and personnel of which were killed and engaged with machine-gun fire massed formations of enemy infantry, causing a general stampede across the open fields. His repeated gallant efforts and consistent devotion to duty under adverse conditions have afforded a very fine example to his flight.

Lieut. HORACE ARTHUR COOPER, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty while as an observer on an offensive patrol he shot down completely out of control one of the twelve machines which had attacked his control. On the following day during a daylight bombing raid on a hostile aerodrome, he engaged with machine-gun fire from a low altitude hostile machines and personnel on the aerodrome. Previous to this he and his pilot voluntarily proceeded on a low-flying reconnaissance, from which they returned with most valuable and important information. He has brought down in all three enemy machines, and has at all times displayed the utmost keenness and efficiency in his work.

T. Sec. Lieut. ROY CHARLES CROWDEN, Gen. List, and R.F.C.—For conspicuous gallantry and devotion to duty during operations. Observing a column of enemy troops

marching along a road, he descended to a very low altitude, bombed them, and threw the column into complete confusion. Later on the same day, he attacked and caused heavy casualties to enemy infantry who were advancing across country. On another occasion he attacked one of six enemy scouts and destroyed it. He showed great determination and a splendid offensive spirit.

Lieut. CUTHBERT ROSS CUTHBERT, R.F.A., Spec. Res., attached R.F.C.—For conspicuous gallantry and devotion to duty. While on contact patrol he and his observer, noticing the enemy massing for an attack, sent down the call to open fire, which was answered, with the result that the enemy were driven back to their trenches. This was done on two later occasions, until finally the enemy were repulsed with heavy casualties. A hostile two-seater plane was then attacked, with the result that the latter dived very steeply, with smoke issuing from it. His consistent gallantry and good work have proved invaluable.

T. Sec. Lieut. HIRAM FRANK DAVISON, R.F.C.—For conspicuous gallantry and devotion to duty. During four days' operations he destroyed two enemy aeroplanes and drove down two out of control, while his observer destroyed one and drove down another out of control. He also assisted other members of his squadron in destroying enemy machines. He showed splendid courage and leadership, and set an excellent example to his comrades.

T. Sec. Lieut. JAMES DAY, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. In one night he made five consecutive raids over the enemy's lines, during which period he dropped over half a ton of bombs on his two objectives. He also, during these raids, engaged with machine-gun fire from low altitudes enemy billets in the same neighbourhood. He has rendered exceptionally valuable service, and has taken part in numerous bombing raids by night, almost all of which have been most successful.

Lieut. (T. Capt.) WILLIAM DEANE, Norfolk Regt. and R.F.C.—For conspicuous gallantry and devotion to duty. He attacked massed enemy troops, dropping eight bombs on them and inflicting very severe casualties. He was then attacked by four enemy machines, and severely wounded; but by displaying great endurance he succeeded in landing his machine safely at his aerodrome. His work in conjunction with the artillery, and his handling of his flight, have been brilliant, and by his exceptional courage and devotion to duty he has set an extremely fine example to his squadron.

Lieut. RALPH ST. JOHN DIX, London Regt. and R.F.C.—For conspicuous gallantry and devotion to duty. While on a reconnaissance which lasted four hours he attacked enemy infantry with machine-gun fire and bombs. Though he was attacked by eight enemy scouts, one of which he shot down out of control, he obtained very valuable information. He did excellent work throughout the operations, flying at very low altitudes, and never spared himself in his determination to obtain accurate information and to inflict losses on the enemy.

Sec. Lieut. (T. Capt.) HERBERT FRANK STACEY DREWITT, R.F.C., Spec. Res.—For conspicuous gallantry and devotion to duty. He, with another pilot, persistently attacked a large body of hostile cavalry, with the result that great confusion was caused, many casualties inflicted, and the horses stampeded in all directions. On a later occasion he engaged with machine-gun fire from a low altitude two hostile field batteries which were shelling our infantry. He has destroyed in all six enemy machines and has brought down out of control six others. He has displayed exceptional skill and gallantry.

T. Sec. Lieut. ROBERT STEWART DURNO, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. When on photographic work he succeeded, despite the most constant and severe fire from the ground, in taking 16 photographs from a height of 1,300 ft. On the following day he took part in a low-flying attack on hostile formations of troops, as a result of which, though his machine was riddled with bullets, he was forced to land, but succeeded in doing this behind our front line. He has set a splendid example to his flight.

Lieut. (T. Capt.) WILLIAM RAYMOND FISH, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. While on reconnaissance, observing a number of enemy troops and transport on a road, he engaged these, diving on them from a height of 500 ft. He was throughout subjected to the most violent machine-gun and rifle fire from the ground, but he succeeded in scattering the enemy in all directions and inflicting heavy casualties on them. He has also destroyed several enemy machines, and his personal example and determination have been of the greatest value to his squadron.

T. Sec. Lieut. ADRIAN WINFRID FRANKLYN, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. On one occasion he silenced an enemy battery which had

been most active, and on the following day shot down a hostile plane, which finally crashed to earth. He has on numerous occasions successfully attacked enemy aircraft on the ground, and by accurate bombing and machine-gun fire has inflicted heavy casualties on personnel and a very considerable amount of damage to materiel. His skill and gallantry have been of the highest order.

Lieut. EDWARD DAVID GEORGE GALLEY, A.S.C. and R.F.C.—For conspicuous gallantry and devotion to duty. Attacking, on one occasion, 14 enemy scouts, he shot down one of these, which was confirmed to have crashed. On a later occasion, he engaged from a low altitude a large convoy on a road, and after diving down from 800 ft., fired all his ammunition into its midst. He then returned to his aerodrome for a further supply of ammunition, and again attacked transport on the same road with the most effective results. He has not only led his flight with signal success, but has on occasion led the whole squadron patrols in the most daring and efficient manner.

T. Sec. Lieut. LAURENCE FRANK GOODWIN, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. On one occasion he flew for over two hours from a height varying from 50 to 100 ft., bombing and engaging with machine gun fire enemy troops and transport, the while inflicting the most severe casualties on them. His keenness and dash are exceptional, and he has rendered since the commencement of the present operations the most meritorious services.

Sec. Lieut. HERBERT JOHN GREENWOOD, West Yorkshire Regt., attached R.F.C.—For conspicuous gallantry and devotion to duty. He undertook a long distance reconnaissance under the most adverse conditions, and succeeded in returning with the most valuable information. During recent operations his work has often been carried out at extremely low altitudes, and the numerous accurate and complete reports as to hostile movements and dispositions of troops, with which he has returned, prove him to be a most able and determined pilot.

Lieut. (T. Capt.) HAROLD ALAN HAMERSLEY, R.F.C., Spec. Res.—For conspicuous gallantry and devotion to duty. On one occasion whilst leading his patrol he attacked a formation of six enemy planes. In the ensuing fight he destroyed two of these machines, one falling in flames and the second crashing to earth, and during the same engagement assisted another officer in destroying a third. In addition to these he has destroyed five hostile machines and driven down three out of control. He is a magnificent pilot, displaying at all times an utter disregard of fear.

T. Sec. Lieut. JOHN LEO STANLEY HANMAN, R.F.C.—For conspicuous gallantry and devotion to duty. While on contact patrol he and his observer, noticing the enemy massing for an attack, sent down the call to open fire, which was answered, with the result that the enemy were driven back to their trenches. This was done on two later occasions, until finally the enemy were repulsed, having suffered heavy casualties. A hostile two-seater plane was then attacked, with the result that the latter dived very steeply with smoke issuing from it. His consistent gallantry and good work have proved invaluable.

T. Sec. Lieut. PHILIP HARDY, Gen. List, R.F.C.—For conspicuous gallantry and devotion to duty. He carried out a most successful contact patrol under very adverse conditions. Though he was wounded in the foot he continued the reconnaissance, and caused many casualties to enemy infantry by his machine gun fire. He has always set a splendid example of courage and skill.

Lieut. WILLIAM JAMES HARVEY, R. Dublin Fusiliers, Spec. Res. and R.F.C.—For conspicuous gallantry and devotion to duty. During one night he made five consecutive raids over the enemy's lines, during which period he dropped over half a ton weight of bombs on his four objectives. In addition he fired during these raids 1,150 rounds of ammunition from a height varying from 100 to 500 ft. on hostile infantry and transport. He has proved himself to be a consistently good observer, and has performed much successful night-bombing.

Lieut. BERTRAM HEAD, Northumberland Fusiliers and R.F.C.—For conspicuous gallantry and devotion to duty. Whilst on contact patrol with his pilot he accurately located enemy dispositions from a height of 200 ft. When the machine was forced to land owing to his pilot being severely wounded, he succeeded in destroying the machine and bringing his pilot back to safety. He showed marked courage and resource.

Sec. Lieut. ROBERT SAMUEL HERRING, London Regt. and R.F.C.—For conspicuous gallantry and devotion to duty. He carried out a valuable reconnaissance under heavy fire from the ground, obtaining valuable information and engaging enemy troops with machine-gun fire with good effect.

On another occasion, while on a photographic reconnaissance, he was attacked by six enemy triplanes. He drove them all off after a hard fight and returned with his photographs. He has driven down four enemy machines out of control and has set a splendid example of determination and resource.

Sec. Lieut. FREDERICK LESLIE HIRD, R.F.C.—For conspicuous gallantry and devotion to duty. Observing a number of troops in a sunken road, he at once attacked them, dropping four bombs, three of which fell in their midst. He then fired 750 rounds into a large body of men marching along a road. By constantly diving and firing on the enemy they were prevented from moving along the road, and suffered extremely heavy casualties. On a later occasion he again attacked a body of enemy troops, dropping two bombs amongst them and firing 330 rounds into them. He has by his great gallantry and skill set a fine example to his squadron.

T. Sec. Lieut. GEORGE LESLIE HOBBS, R.F.C.—For conspicuous gallantry and devotion to duty. While carrying out a reconnaissance he and his observer were attacked by eleven hostile scouts. They succeeded in destroying one of them, drove off the remainder, and then completed the reconnaissance. Later, when information was urgently required during an engagement, he and his observer carried out a most successful reconnaissance, flying at a very low altitude under continuous rifle and machine gun fire from the ground. They located hostile batteries and enabled very effective counter-battery work to be carried out, and also engaged ground targets with bombs and machine gun fire. He showed splendid courage and skill.

T. Sec. Lieut. PERCY KYME HOBSON, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. Observing a large body of troops with transport, he descended to within 200 ft., and, despite very severe enemy rifle and machine gun fire from the ground, dropped four bombs, three of which were direct hits on the transport, causing severe casualties, which were increased by the accurate machine gun fire brought to bear on his target. On a later occasion, he observed a large body of troops moving across the open, and attacked these with bombs and machine gun fire, causing many casualties and scattering them in all directions. He has been responsible for the destruction of four enemy machines and has at all times shown a complete disregard for personal danger.

T. Sec. Lieut. LIONEL CONRAD HOOTON, R.F.C.—For conspicuous gallantry and devotion to duty. On one occasion, during a very thick mist, he and his pilot by flying very low, despite very heavy machine gun fire, succeeded in locating the enemy's position. Though their machine was hit in all the vital parts, it was flown back to the aerodrome in safety. On a later occasion, when on contact patrol during failing light, they succeeded in locating accurately the position of the enemy. They have shown the utmost gallantry and skill during recent operations, and have carried out their duties with the greatest courage and determination.

T. Lieut. GEORGE OWEN JOHNSON, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. Observing a large body of the enemy on a road, he descended to a low altitude and dropped four bombs, which exploded amongst them, causing the most severe casualties. He then attacked the enemy with machine-gun fire from a height of 20 ft., causing many more casualties and scattering them in all directions. On a later occasion, he secured four direct hits on a column of horse transport, and diving down to 50 ft., by his persistent attacks held up an enemy advance for a considerable period. He has destroyed two hostile machines, has driven down two others out of control, and has always displayed the greatest courage and coolness in the most difficult situations.

Sec. Lieut. WILLIAM WALTER JONES, London Regt. and R.F.C.—For conspicuous gallantry and devotion to duty. On one occasion he attacked enemy transport, dropping eight bombs and firing 300 rounds into its midst, with the result that several limbers were completely destroyed and severe casualties inflicted on the enemy. Later in the same day, he again attacked enemy transport, causing a stampede amongst the horses and inflicting many casualties. Whilst returning to his aerodrome, he attacked with machine-gun fire two hostile batteries in action, firing 400 rounds into their midst. His pluck and determination were beyond all praise.

T. Lieut. AUGUSTINE PATRICK KELLY, R.F.C.—For conspicuous gallantry and devotion to duty. When information was urgently needed as to the enemy's position during an action, he carried out a reconnaissance at a low altitude under heavy machine-gun fire. Though wounded he completed his patrol, located the enemy's position and brought back most valuable information. He showed splendid courage and skill throughout the operations.

T. Capt. FRANCIS MANSEL KITTO, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. While engaged in attacking ground targets with machine-gun fire and bombs he observed a large party of troops, amongst whom he dropped the remainder of his bombs with the most excellent results. On a later occasion he attacked a formation of enemy scouts, and having caused one of these to crash to the ground, he pursued another and attacked it eleven miles behind the enemy's lines, bringing it to the ground and destroying it. In addition to these he has shot down two other hostile machines, and has shown throughout the greatest determination and dash.

Lieut. ALFRED KOCH, R.F.C.—For conspicuous gallantry and devotion to duty. During ten days' operations he carried out eleven reconnaissances at low altitudes. He continually attacked and disorganised enemy troops and transport, and on one occasion he dispersed a battalion of enemy infantry which was marching along a road. On a later occasion, after he had completed a reconnaissance and bombed an enemy position, he was attacked by an enemy patrol. Though his tanks were pierced, and he was wounded, he succeeded in flying his machine back to the aerodrome. He showed splendid courage and initiative.

T. Sec. Lieut. ARTHUR EDWARD LANCASHIRE, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. During a flight, lasting for over two hours, carried out at a height of 700 ft., he performed a very accurate contact patrol at a critical period, obtaining the most valuable information concerning the enemy's dispositions. He also engaged many batteries and infantry with machine-gun fire, and throughout, by his courage and keenness, he set a fine example to all ranks.

Lieut. ERIC GILBERT LEAKE, Manchester Regt. and R.F.C.—For conspicuous gallantry and devotion to duty. On one occasion, observing a hostile scout, he at once attacked and fired 1,000 rounds at close range. The hostile machine went down in a steep glide and crashed to earth. Later, when on contact patrol, his machine was damaged, and forced to land just behind our lines. Although under heavy shell fire, he, assisted by another officer, succeeded in salvaging all the instruments and equipment on the machine before destroying it. He has set a very high example of courage and devotion to duty throughout the operations.

Lieut. ROBERT DOUGLAS LEIGH-PEMBERTON, Grenadier Guards and R.F.C.—For conspicuous gallantry and devotion to duty. On one occasion he bombed enemy infantry from a height of 500 ft., and attacking them continuously with machine gun fire scattered them. While he was returning for a fresh supply of bombs and ammunition, both his petrol tanks were shot through and he was forced to land some distance in rear of the enemy's advanced line. He, together with his observer, successfully evaded the enemy's patrols and eventually reached our infantry. He has also destroyed one hostile scout and has sent down another out of control. Throughout the operations he set a very fine example of dash and gallantry.

Lieut. (T. Capt.) CYRIL MOUNTAIN LEMAN, R.G.A. and R.F.C.—For conspicuous gallantry and devotion to duty. Whilst on a low-flying bombing patrol, he, by a direct hit from a bomb, put out of action a hostile battery and silenced another by machine gun fire. The enemy fire was so intense that he was forced to land in front of the enemy's advanced line, whence he returned to make his report after leaving his machine a total wreck. He has on many occasions created great havoc as a result of bombing and attacking with machine-gun fire batteries in action, enemy transport and infantry, inflicting very heavy casualties on them. His skill and gallantry have been most marked.

T. Sec. Lieut. ERNEST LINDUP, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. During the recent operations, when bombing troops on roads from low altitudes, he was attacked by three hostile triplanes, one of which he shot down, finally driving off the remaining two. Though all his lateral controls were shot away, he succeeded in landing his machine at his aerodrome. On a later occasion, whilst on photographic work, when his machine was badly damaged by anti-aircraft fire, he succeeded in landing it behind our lines. He has destroyed one enemy machine and shot down out of control four others. His services have been characterised by gallantry and determination.

T. Sec. Lieut. HUGH PUGHE LLOYD, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. During an offensive patrol he dropped bombs on motor transport, one lorry being completely destroyed and others damaged. Enemy troops advancing to the attack were then engaged with machine gun fire, which inflicted numerous casualties on them. Later, he bombed an enemy battery coming

into action, the horses of which bolted, a great number of the gun detachments being killed. He has on all occasions shown the greatest pluck and determination in carrying out any task allotted to him.

Lieut. RUTHVEN MONTGOMERIE CHASE MACFARLANE, R.F.A. and R.F.C.—For conspicuous gallantry and devotion to duty. During a flight, lasting for over two hours, carried out at a height of 700 ft., he performed a very accurate contact patrol at a critical period, obtaining the most valuable information concerning the enemy's dispositions. He also engaged many batteries and infantry with machine gun fire, and throughout by his courage and keenness he set a fine example to all ranks.

T. Sec. Lieut. WILLIAM GEORGE MACKENZIE, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. While on a contact patrol he saw the enemy launch an attack in force. He dropped bombs on the enemy reserves, causing many casualties. He then attacked the advancing enemy, flying just above their heads and killing a large number of them. When his ammunition was exhausted, he returned and made a valuable report. He showed magnificent courage and determination throughout the operations.

T. Sec. Lieut. DONALD RODRICK MACLAREN, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. On one occasion, when on low bombing work, he bombed a long range enemy gun 9,000 yards behind the lines, obtaining from a height of 200 ft. two direct hits on the gun truck and two on the railway track alongside. When returning to our lines he encountered a hostile two-seater machine, which he shot down crashing to earth. He then attacked a balloon, which burst into flames, and, finally, observing another enemy two-seater plane, he engaged it and eventually succeeded in crashing it to earth. He has set an excellent example of gallantry and skill to his squadron.

Sec. Lieut. ERNEST REYNOLDS MADDOX, Hampshire Regt., attached R.F.C.—For conspicuous gallantry and devotion to duty. During an enemy attack he repeatedly dived to a very low altitude and engaged the enemy troops with bombs and machine gun fire. The enemy were in massed formation, and sustained very heavy casualties. On numerous occasions during the recent operations he has inflicted very heavy casualties, and caused the greatest panic among enemy troops and transport by the daring manner in which he has employed his bombs. His gallantry and skill have been most praiseworthy.

T. Sec. Lieut. FRANCIS PEABODY MAGOUN, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. When engaged on bombing work he attacked and shot down an enemy machine, with the result that it crashed to earth. He has also engaged massed enemy troops and transport with machine gun fire from low altitudes, throwing the enemy

into the utmost confusion and inflicting heavy casualties. His work has been carried out with consistent keenness and tenacity.

T. Capt. CECIL JAMES MARCHANT, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. He, with two other pilots of his squadron, bombed a freight train from a height of 50 ft., three trucks being derailed. Again, on a later occasion he, with five other pilots, bombed and fired at a column of enemy transport with such good effect that three-quarters of the personnel became casualties and most of the vehicles were destroyed. Whilst on a low bombing reconnaissance during the recent operations he brought down two hostile two-seater machines out of control and shot down a third in flames. He has at all times displayed marked gallantry and resource.

T. Sec. Lieut. RONALD TURNBULL MARK, Gen. List and R.F.C.—For conspicuous gallantry and devotion to duty. He showed great determination and resource during operations in attacking enemy troops and transport with machine gun fire. Observing some enemy transport in a village, he attacked it repeatedly and caused it to stampede. While on an offensive patrol he attacked and destroyed an enemy two-seater machine. He has destroyed one other enemy machine and driven down others out of control.

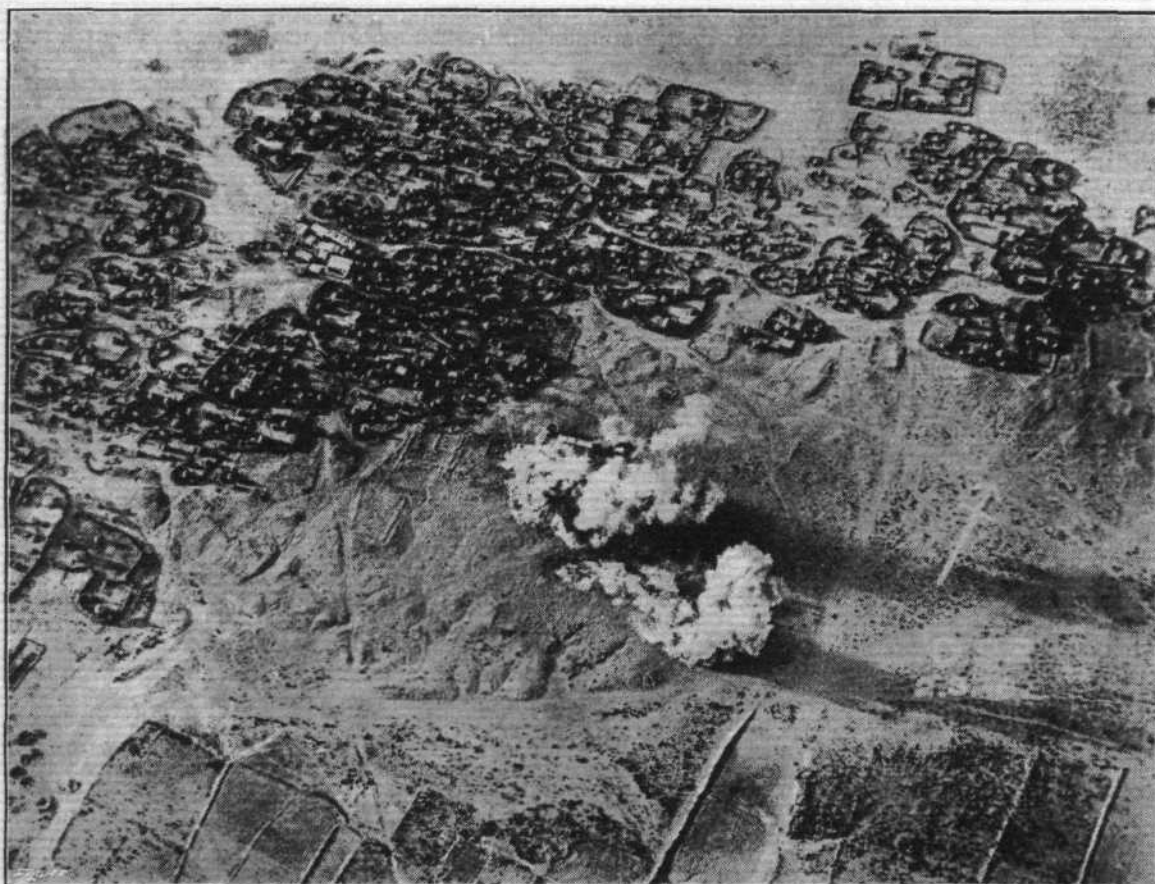
Lieut. (T. Capt.) RONALD SINCLAIR MCCLINTOCK, R.F.A. and R.F.C.—For conspicuous gallantry and devotion to duty. On one occasion he shot down two enemy machines, and on the following day he attacked and shot down a hostile two-seater machine at a height of 100 ft. He has led upwards of forty patrols and has performed much valuable work on low-flying reconnaissance and bombing patrols. As a flight commander he has been untiring in his care of personnel and machines, and as a patrol leader he has displayed the greatest courage and resource.

Lieut. (T. Capt.) NORMAN CRAIG MILLMAN, R.F.C., Spec. Res.—For conspicuous gallantry and devotion to duty. Whilst on offensive patrol, he encountered a hostile formation of twelve machines. He led his patrol in such brilliant fashion that five of the enemy machines were shot down either in flames or out of control, two of these being accounted for by himself and his observer. Previously to this, he had carried out voluntarily a reconnaissance, from which he succeeded in returning with most valuable information, despite the fact that he had been heavily engaged by machine-gun fire during the greater part of the flight. Later, he commanded a formation on one flank of the attack during a daylight bombing raid on a hostile aerodrome, and carried out his task in a most dashing and successful manner. He has at all times displayed powers of leadership of the highest order.

(The remainder of the awards, 38 in number, will be published in our next issue.)

Official photo.

Aerial Work on the Palestine Front.—Photograph showing bombs bursting on a fort in this sphere of the war.



THE ROYAL AERONAUTICAL SOCIETY.

THE annual general meeting of the Royal Aeronautical Society was held on Tuesday, June 18th, at 5 p.m., at the offices of the Society, 7, Albemarle Street, London, W.1. The Chairman of Council, Maj.-Gen. R. M. Ruck, C.B., C.M.G., R.E., presided. The meeting approved the postponement until that afternoon of the date of the annual general meeting, which should under Rule 11 have been held before March 31st.

Miss Phoebe Hudson, Maj. Low, R.A.F., and Mr. Ormsby were appointed scrutineers of the ballot for the Council.

In introducing the annual report of the Council and the balance sheet for 1917, the Chairman said:—

"Before beginning the business of the meeting I wish to say a few words about the great loss which has been sustained by the Society in the death of Mr. B. G. Cooper.

"Mr. Cooper was for nearly eight years a member of the Council, and for over four years secretary to the Society, during which time I was closely associated with him, and can state from personal experience that the Society could not have had a more devoted official. Whatever action he took or opinion he expressed, it was always with the object of furthering the interests of the Society. He took a special interest in the scientific and educational aspects of aeronautics, and was always urging the necessity for maintaining the prestige of the Society in these particulars. He was a most conscientious secretary, and I am sure all members of the Society with whom he was brought in contact had the greatest respect for him. He resigned the secretaryship, having received the offer of an appointment at the Air Ministry which he thought it his duty to accept. It is evident that his services were greatly appreciated by the Air Ministry, for he received an honorary distinction, and quite recently an important appointment. As to his death, all that need be said is that his life was given to further the interests of the national cause and the development of science, the subject on which he had concentrated the efforts of his valuable life.

"The Council of the Society have expressed their regret and sympathy with Mr. Cooper's relatives, and I am sure all members will be anxious to endorse this action.

"There has been a gratifying increase in membership and also in the funds of the Society, which are in a sound financial condition.

"The activities of the Society have been considerable, notwithstanding the exceptional difficulties due to the war. I wish to direct special attention to the work which is being done by members of the Society in connection with Government Committees during the past year. I can state from personal knowledge that the status and valuable work of the Society are fully acknowledged by the Government authorities, a particularly gratifying example of which is the consent of

the Secretary of State for the Air Ministry to preside at our annual Wilbur Wright lecture next week, on which occasion Dr. Durand, the distinguished scientific American aeronautical expert, has kindly consented to give a lecture.

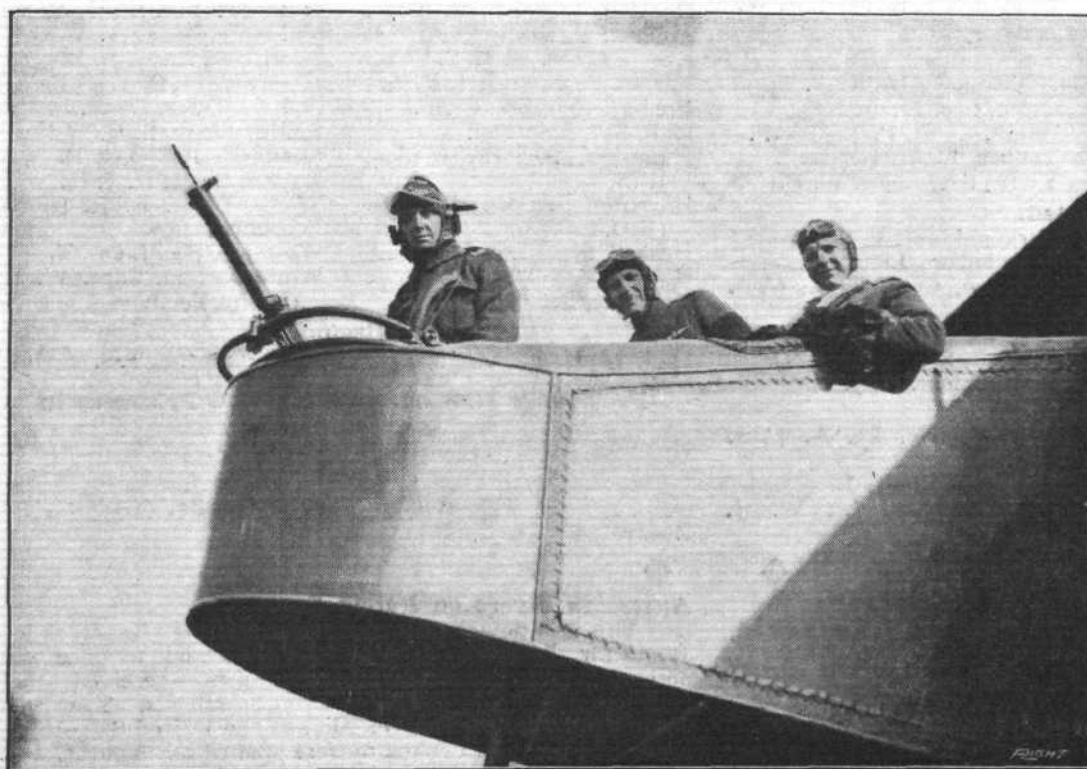
"Another committee which I would specially refer to is the Technical Terms Committee, presided over by Col. O'Gorman. This Committee consists, in addition to representatives of the Aeronautical Society, of representatives of the Air Council, War Office, Admiralty, Patent Office, Meteorological Office, the Advisory Committee for Aeronautics, Royal Aero Club and the Society of British Aircraft Constructors. They have also been assisted by the National American Advisory Committee for Aeronautics, and the results are most valuable.

"Whilst all this points to the continued progress of the Society, I think I ought to refer to some difficulties which have been experienced: more especially in securing an adequate attendance of members of the Council except in certain cases. It is quite realised how difficult it is under present circumstances for the members to attend more frequently, but if this cannot be done it throws the management to a great extent on the Chairman and the secretariat, which, I am sure, is not a satisfactory arrangement in the long run. I hope, therefore, it may be possible to revise the activities of the sub-committees to a greater extent, and that in future the bulk of the work will be done by this means. In saying this I do not reflect in any way on the work of the secretary and staff, in fact, I am sure that all members appreciate thoroughly the improvement in membership and financial position which is due in considerable measure to Mr. Faraday and his assistants. I am rather speaking of the general policy which should be pursued by the Society with regard to its future organisation and activities. There is a great deal of most useful work to be done in developing the scientific, technical and educational aspects of aeronautics, and I am convinced that this can only be effected satisfactorily by the combined efforts of the Council and the members of the Society."

Sir Mackenzie Chalmers moved the adoption of the report. It was, he thought, more than satisfactory, and those responsible for the working of the Society were to be congratulated on the record of work done and the great success achieved. He would like to draw attention to two points. One was the very necessary work of co-ordinating much of the scientific work done on behalf of the Civil Aerial Transport Committee. The second point was the desirability of sympathetic co-operation with similar societies to their own in the United States.

Mr. Bairstow said that the first point was receiving attention from the proper authorities.

The Secretary said that the Society was in regular corres-



Official photo.
On the British
Western Front in
France.—A trio
of R.A.F. fighting
men in the nose
of a Handley-
Page.

pondence with the various American Aeronautical organisations.

The report was unanimously approved.

In moving the adoption of the accounts and balance sheet, Mr. R. Borlase Matthews said it was a great pleasure to learn of the satisfactory financial position of the Society.

The accounts were unanimously approved.

THE ROLL OF HONOUR.

(Where an Officer is seconded from the Army, his unit is shown in brackets.)

Published June 19th.

Killed.

Bolay, Sec. Lieut. A. R.	Mitchell, Lt. N. R. (R. Scots).
Coffey, Lieut. C. R.	Nugent, Sec. Lieut. A.
Davidson, Sec. Lieut. W. D.	Willey, Sec. Lieut. R.
Flavelle, Sec. Lieut. V. A.	

Wounded.

Birkinshaw, Sec. Lieut. J. J.	MacLean, Capt. G. J.
Brown, Lt. C. W. (Midd'x).	Mair, Capt. W. J.
Crocker, Sec. Lieut. C. K.	Malcolm, Sec. Lt. W. A.
Crozier, Lieut. A.	Mawson, Lieut. L.
Finke, Sec. Lieut. R.	McKellar, Sec. Lieut. D.
Foxall Smedley, Sec. Lt. F.	Reeler, Sec. Lieut. W. L.
E. J.	Slater, Sec. Lieut. I.
George, Lieut. W. A.	Scroggs, Sec. Lt. A. F.
Hurridge, Lt. L. H. (R. Fus.).	(R.G.A.).
Layton, Sec. Lieut. W. D.	Williams, Sec. Lt. A. T.

Missing.

Gregory, Sec. Lt. R. J.	Turner, Capt. H.
Magee, Sec. Lieut. E. A.	Webb, Sec. Lt. G. (S. Staff.).

Published June 20th.

Killed.

Allman, Sec. Lieut. K. W.	Kemp, Sec. Lt. G. H. (Durh. L.I.).
Davey, Sec. Lt. A. V. P.	Ross, Lieut. G. A. B., King's (L'pool.).
(R.F.A.).	
Finlay, Sec. Lieut. K. N.	
Garden, Lieut. C. S.	

Died of Wounds.

Heigham Plumptre, Lieut. L. G. (Bedf.).

Wounded.

Beesley, Lieut. A. B.	Pratt, Lieut. R. G.
Box, Sec. Lieut. P. D.	Rathbone, Sec. Lieut. J.
Bracewell, Sec. Lieut. T.	Smith, P.F.O. H. P.
French, Lieut. C. M.	Tanner, Capt. J. C.
Horton, Sec. Lieut. C. R. R.	Waller, Sec. Lieut. R. P.
Niven, Sec. Lieut. R.	Whitehouse, Sec. Lieut. S.
Pocock, Sec. Lieut. L. E.	

Missing.

Forder, Lieut. E. G.	Muir, Lieut. R. C.
Hand, Lieut. E. McN.	Repton, Lt. C. T. (S. Notts Huss.).
McGregor Turnbull, Maj. M. R.	Sugden, Sec. Lieut. J. E. W.

Published June 21st.

Killed.

Fish, Capt. W. R., M.C. (Suff.).	Nightingale, Lieut. A.
Galvayne, Lt. V. F. A.	Owen, Sec. Lieut. N.
Hart, Sec. Lieut. E. S.	Rahill, Lieut. P. J. (Ches.).
Lewis, Sec. Lieut. J. A. C.	Tapper, Lieut. H. K.
Maltby, Sec. Lieut. A. H.	Yuille, Sec. Lieut. W. B.

Wounded.

Bernard, Lieut. L. A. A.	Parker, Lieut. V. S.
Cottle, Lieut. J.	Saunderson, Lieut. H. V.
Frayne, Lieut. O. W.	Simpson, Capt. T. L. (Aus. F.C.).
Greene, Sec. Lieut. W. C.	
Hamilton, Lt. E. (S. Irish H.).	Van der Ben, Sec. Lt. R. C.
Harris, Sec. Lieut. W.	Vincent, Sec. Lieut. F. C.
Hinchcliffe, Lieut. J. B.	Watts, Lieut. H. J.

Missing.

Cunningham, Lieut. M. F.	Rintoul, Sec. Lt. A. (Aus. F.C.).
Hacklett, Lieut. L. A.	
Harvey, Lieut. T. F. (Sea. Highrs.).	Seymour, Lieut. L.
McEwan, Sec. Lt. G. C.	Stockins, Sec. Lt. W. J. (Lond.).

Back from Germany.

The following officers, who were prisoners in Switzerland, have now arrived in England:—

Capt. F. B. Binney, R.F.C.

Lieut. W. Black, D.L.I., attd. R.F.C.

Lieut. W. Harle, Northumberland Fusiliers, attd. R.F.C.

Maj. M. A. J. Orde, R.F.C.

Lieut. L. A. Smith, Can. Gen. List, attd. R.F.C.

The scrutineers announced the result of the ballot, having found that on a count of the votes received the following were elected to the Council:—

Maj.-Gen. Ruck,

Mr. L. Bairstow,

Dr. T. E. Stanton,

Maj. A. R. Low,

Lieut.-Col. R. K. Bagnall-Wild.

Mr. H. White Smith.

Dr. R. Mullineux Walmsley.

Mr. F. H. Bramwell.

Published June 22nd.

Killed.

Arthur, Maj. J.	Simms, Sec. Lt. J. B. P.
Elliott, Lieut. H. W.	(North'd Fus.).
Heater, Sec. Lieut. R. E.	Simpson, Sec. Lieut. T. E.
Manuel, Lieut. E. G.	Talbot, Lieut. A.
Meadway, Lt. B. W. (Northn. R.).	Wilberforce, Capt. W. R. S. (K.R.R.C.).
Sessions, Sec. Lt. F. H. N.	

Died of Wounds.

Paynter, Capt. J. De C.

Wounded.

Bainbridge-Bell, Lieut. L. H.	Miles, Capt. F. H. H. (Co. of Lond. Yeo.).
(R. Muns. Fus.).	Morton, Lieut. A. V. (Glouc.).
Bastin, Sec. Lt. G. H.	Newman, Lt. H. S. (Welsh).
Bell, Lieut. E. (Co. of Lond. Yeo.).	Nuttall, Capt. F., M.C.
Cheeseman, Lieut. V. G.	Oakley, P/F/O H.
Cochrane, Sec. Lt. G.	Sacre, Sec. Lt. H. (R.F.A.).
Dewar, Lt. J. F. (H.L.I.).	Thompson, Sec. Lt. J. F.
Enright, Lieut. P. A.	Vaughan, Lieut. R. C., M.C. (Shrop. L.I.).
Feather, Lieut. J. L.	Ward, Lieut. P. L. (R.F.A.).
Hunter, Sec. Lt. W. Alex.]	
Mann, Lieut. L. J. (A.S.C.).	

Published June 24th.

Killed.

Agerup, Lt. H.	Marchant, Lieut. F. N.
Busby, Capt. V. E. G.	Roper, Sec. Lieut. G.
Jones, Lieut. F. J.	Spencer, Lieut. E. D. (Can. Rly. Trps.).
Link, Sec. Lieut. F. L. C.]	

Previously Missing, now reported Killed.

Aspinall, Capt. J. V.	[Millet, Sec. Lt. J. N. L.
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Previously Missing, now reported by German

[Government Killed or Died of Wounds.

Agar, Capt. E. Z. (Alta. R.).	[Harmon, Lieut. B. W., M.C. (Manit.).
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Accidentally Killed.

Lee, Sec. Lieut. J. W. (S. Wales Bord.).

Wounded.

Burrell, Lieut. H. G.	McGregor, Lieut. G. S.
Denison, Lieut. F. B. (Cent. Ont.).	McIntosh, Sec. Lieut. A. N.
Eason, Lieut. H. R. S.	McIntyre, Sec. Lt. C. W. G.
Farfan, Sec. Lieut. J. R. A.	Nicol, Sec. Lieut. L. V.
Frederichsen, Sec. Lt. P.	Ross, Sec. Lt. B. A. (R. Berks)
Hall, Sec. Lieut. W.	Shepherd, Sec. Lieut. F.
Hamilton, Sec. Lt. J. (Sco. Rif.).	Smith, Lieut. S. C.
Harrison, Sec. Lt. F. H. H. (K.O.Y.L.I.).	Summers, P/F/O G. B.
Haskell, Sec. Lieut. L. R.	Taylor, Lieut. H. J. H.
Howdle, Sec. Lieut. J. T.	Watts, Lieut. E. R. (Gord. Highrs.).
Kennedy, Sec. Lieut. K.	Whitman, Sec. Lieut. T.
	Winterbottom, Capt. W. R. (Derby Yeo.).

Missing.

Hall, Lieut. C. R. (Queb.)	Kelly, [Lieut. E. T. S. (E. Ont.)
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[Previously Missing, now reported Prisoners in German hands.

Hustwitt, Lt. S. A. (Can. Eng.).	Scott, Lt. W. A. (Can. For. Corps).
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Prisoner in Turkish hands.

Everard, Maj. A. J., M.C.

American Flyers on Italian Front.

The first detachment of American airmen last week left Rome for the Italian front, where they went at once into action. These airmen—all volunteers—received their instruction in flying in Italian aviation schools. They were accompanied by Mr. La Guardia, of the United States Congress, and on their departure were greeted by Signor Chiesa, the Commissioner for Aviation.

SOME OUTSTANDING PROBLEMS IN AERONAUTICS.*

By Dr. DURAND.

SIR WILLIAM WEIR, Secretary of State to the Air Ministry, who presided at the sixth Wilbur Wright lecture, in opening the proceedings, announced that the King had been pleased to grant permission to the Aeronautical Society—the oldest aeronautical society in the world, having been founded in 1868—to be known in future as the Royal Aeronautical Society. His Majesty recognised the importance of the work which the society had performed in the interest of the nation. Sir William Weir then went on to pay a much merited tribute to the skill, ingenuity, and capacity of our aircraft designers. He said that our policy of entrusting the design to the industry itself has been very successful, and the country owes a deep debt of gratitude to those firms who are devoting so much skill to the development of our designs, and more particularly those pioneer firms who worked so many years without any immediate prospect of reward. During the past three years of war, that great advance has been accelerated, and designers and engineers in this country had played an outstanding part in this progress. Their combined achievement was one to be proud of. Our technical superiority over the enemy at the present time was equalled by the superiority of the human qualities of skill, enterprise, endurance, and pluck displayed by our pilots.

In aerial warfare, the assistance the United States had already rendered us in the way of *personnel* was very great. Her officers and men had won golden opinions from all with whom they had come in contact. The universal opinion was that they were unsurpassed in their energy and modesty, and for their willingness to learn and their desire to co-operate in everything. So far as *personnel* was concerned, they entertained the fullest confidence in the future success of the American Air Force. With regard to material, we might now begin to speak with equal confidence. The tests which had recently been applied in France and in this country, to the latest American engine justified them in predicting that it would prove a most valuable contribution to the Allied resources, and the United States could go ahead and push its production with every confidence. The results of experiments so far obtained placed the engine in the very first line of aero motors. It was well understood that some criticism would be directed against the slowness of production of these motors during the last three or four months. Every engine, even the best designed in the country, with the greatest resources and facilities, could not escape a period of what was called teething troubles, before the motors were produced on anything like a large scale. The Liberty engine was an example of what the Allies might expect in the matter of aircraft production from the scientists and designers of America whom Dr. Durand represented. The various methods of utilisation of aircraft in warfare were growing very rapidly—so rapidly that even with all the help that America could give, the fullest demands which could be made to fulfil all the different functions of aircraft would never be met during this war. We should always require more aircraft with *personnel* than could possibly be supplied to-day.

Dr. Durand then gave his lecture as follows:—

Under the circumstances which have determined the direction and character of the development of the aeroplane during the past decade, and especially under those which have been controlling during the past three or four years, it is only to be expected that at the present moment we should find ourselves with many partly solved problems on our hands, with others which we have hardly more than begun to attack on the outskirts and confronted by others still, the character and significance of which we have hardly begun as yet to apprehend.

The Problem of Constructive Materials.

Perhaps nowhere is there to be found a better illustration of the interdependence of technical and scientific research and study than in the manifold advances in various technical and scientific lines which conjointly have made the aeroplane in its present form a structural possibility. Broadly, the modern aeroplane comprises a body of some sort or form fitted with wings to provide the supporting surfaces, with a prime mover or source of power and with a propeller of some type to transform the power provided by the prime mover into propulsive work, and, by the reaction of the relative air stream on the under-side of the wings, to secure the sustaining or lifting force necessary to carry the weight. This construction calls for a wide range of constructive materials. Thus the body and wings, comprising the aeroplane proper, require the following fairly distinct classes of structural elements:—(1) Those intended primarily to give form, strength and coherence to the structure. They represent in effect the skeleton or foundation on which the entire function of the aeroplane as such must depend. (2) Various secondary elements intended to tie or connect the principal members together as to secure homogeneity of structure as a whole, and mutually responsive action on the part of the different elements comprised under No. 1.—The elements here considered are those which, from a purely structural view-point, may be classed as struts and ties or tension members. (3) Surface covering for the body and wings. This gives outer form and continuity of surface and provides furthermore the actual surfaces on which the air lifting and supporting forces may act. Broadly speaking, the fundamental problem in all aeroplane construction is adequate strength or function on minimum weight. In no other form of engineering construction is the necessity for weight-saving so rigorous. In a very real sense every ounce of material entering into the structure must be able to show a competent passport. The structural problem of the aeroplane is therefore one of strength in relation to weight. For the main elements comprising the skeleton of the structure, wood has, thus far, held the main place with metal construction steadily attracting more and more interest and assuming a place of growing importance, at least in the study of new designs.

It is not necessary to our present purpose that we should consider in detail present practice in aeroplane construction. The trend of development since the earliest days of the art has

* The Sixth Wilbur Wright Lecture, read at the Central Hall, Westminster on June 25th.

tended to show that wood construction under suitable design and safeguard was able to provide the easiest and on the whole the most satisfactory solution of the many problems and requirements which aeroplane construction presents, and so we have been content, for the most part, with this type of construction. We may, however, be well assured that however good may be any solution which we may reach of the many problems presented to us in the industrial arts, there are, as a matter of fact, series of better ones only awaiting our patient study. This is indeed a fundamental truth of which we should never lose sight. We may be, for the moment, satisfied with our solution of a problem in technical industry; we may be able to see nothing better, and yet we may be well assured that, as a simple matter of fact, there is something better. This is a perfectly safe assertion, if only as based on the law of probability of our having, at any given time, reached the final optimum possible combination capable of furnishing a solution of the problem. Thus, as applied to the problem of constructing the framework of the fuselage of an aeroplane or of combining together wing spars and ribs in such manner as to form a wing skeleton, we may be sure, however good our present practice may be and however satisfactory it may seem, that in reality it is not the best and that long series of better solutions only await our intelligent and patient study. In this and in all such problems there are always two fairly distinct though inter-related parts: (a) What materials are best suited to the purpose in view. (b) What disposition shall be made of the materials adopted. Thus, in the case of the fuselage, granting wood material to be adopted, there remains the question as to the very best distribution of such material as between the main longitudinal elements, or longerons, and the intermediate elements; also as to the extent to which reliance may be placed on the outer covering, especially if of ply-wood. What aeroplane designer can feel sure that, even with given materials, he has reached the optimum distribution of function as between the main and secondary elements of the fuselage and of a ply-wood outer covering? Much less, what aeroplane designer can feel any confidence in having now reached an optimum combination, once we admit the possibility of metal construction, or of some combination of metal and wood, with all the possibilities of the new light metal alloys and of the new alloy steels with their astonishing physical characteristics. So far as conditioned by the application of the ordinary loading tests, static in character, and aside from the possible results of dynamic attack, shock, long-continued vibration, &c., we may perhaps frankly admit that the present state of metallurgy is able to supply us with material, either in the way of light aluminium alloys or special steel alloys, which if properly used, will enable us to meet all such static tests in an aeroplane construction, and on even terms or better as regards weight compared with wood. If such is the case, it certainly stands before us as a problem for the near future to pass in review most thoroughly the entire range of constructive materials, metallic as well as wood, and to determine, in the light of the experience which we are so

rapidly accumulating during these days of storm and stress in military aeronautics, the combinations of materials which may serve to give the most efficient service on the minimum of weight.

In connection with this search for new and better materials must go hand in hand search for better modes of combination in the structure—in other words, better structural design. It goes without saying that the best general type of design, in the way of the distribution of materials, forms and proportions of members, &c., will vary with the class of material employed. There must be some optimum design with wood. There will likewise be another and undoubtedly a different optimum design in the case of steel, and again different in the case of aluminium or other alloys. Thus the search for the best final combination is a search for an *optimum optimorum*; for the best possible material and for the best possible design using such material. What order of saving may be looked for in the near future from any such search it is, of course, idle to predict. Could we however approach somewhat closely to the best use of the best combination of materials even now available in the field of engineering construction and without waiting for new superior materials which the metallurgical art will doubtless be able to furnish, it seems not unreasonable to anticipate the possibility of a marked saving in weight without loss in strength or security. This then stands out as one of the great problems of aeronautic engineering, that of the best materials and of their best use. Much has already been done, but much yet remains, and rich rewards most assuredly await patient and well-directed work in this field.

The Problem of Size.

One of the most interesting of the problems presented to the aeronautic engineer is that of the limiting size and carrying capacity of aeroplanes—Is there such a limit? If so, what is it? Why is it? And how may it be removed or extended? In dealing with this problem we come, of necessity, into contact with the laws of similitude of geometrically similar structures. It is well known that under simple modes of loading, geometrically similar structures of wing and fuselage will have similar factors of safety under equal unit loads. But for such structures, if strictly similar geometrically, the weights themselves will increase as the cubes of the similar dimensions, while the areas of wing or supporting surface will only increase as the square, and hence the ratio of weight to area will continuously increase as the linear dimension. Under these circumstances, it is readily shown that, in accordance with the relation of the factors involved, there will be, for any given speed, some size for which the lifting capacity over and above the structure itself will be a maximum and above which the lifting capacity over and above the structure will become less and less with increase in size, gradually reaching zero for some value of the size of the structure. This would mean that at such point the supporting force developed at the speed in question would be just enough to lift the structure itself from the ground, but with no reserve for additional load. This is, of course, a definite law derived from well known principles of geometry and calculus, and if it were the whole story, it would indeed tend to raise an insuperable bar before continued expansion in size.—In such were the case it would mean in effect that increase in lifting capacity could only be reached by the following measures:—(1) Reducing to a minimum the relation of weight of structure to area. That is, general improvement in the programme of design and reduction of weight of structure in relation to supporting surface. (2) Reducing to a minimum the resistance of the plane at the given speed and likewise the relation of weight to horse-power. (3) Raising to a maximum the relation of lifting to area, consistent however with the decrease of the total propulsive resistance of the plane.

A Long Flight in Canada.

A FRENCH airman, George Flachwire, who has been awarded the Legion of Honour, the French Military Medal, and the British Military Cross, has flown from Montreal to Toronto, stopping at Brockville and Deseronto. He left Montreal at 11.30 in the morning and reached Toronto at 5.20 in the afternoon. The distance is 330 miles, and he was in the air three hours and ten minutes.

Aerial Mails in Canada.

LAST Monday morning saw the commencement of a mail service between Montreal and Toronto, a distance of 320 miles. Capt. Bryan Peck, R.A.F., taking a packet of over 300 letters to Toronto. The consignment includes messages from the Mayor of Montreal to the Mayor of Toronto; from Lord Shaughnessy, president of the Canadian Pacific Company, to the directors of the Canadian Pacific in Toronto; congratulatory messages from the Aerial League, and similar greetings.

Were we indeed subject, without recourse, to the operation of this law of mechanics and geometry we should be in a sorry state regarding the future developments of the aeroplane as regards size and carrying capacity. We should be limited strictly within the bounds of the developments made possible by improvements and advances along the lines as indicated above. But fortunately for the future of aerial navigation, we are not so limited and there seems no reason why, at the present time at least, we should need to anticipate any especial limit as necessarily imposed on aeroplane construction, as regards either size or carrying capacity. We are able to escape from the consequences of this law due to two facts. (1) It is not necessary that a large element of an aeroplane, a wing in particular, should be geometrically similar in structural characteristics to a small one. For a certain size the structural elements will partake of certain characteristics. As the over-all size increases, these elements may take on new characteristics.—Those which had been solid may now become hollow or of lattice or built-up form. The law of geometrical similitude will not hold and the weight will not necessarily increase in ratio with the cube of the over-all linear dimensions.

(2) It is by no means necessary that a large aeroplane shall be, in its general form, a geometrical copy of a small one. While both will have similar elements, such elements need not be the same in number or arrangement. In fact one of the most obvious of means for increasing lifting power is to increase the number of the wings or lifting elements. There is no reason, at least structurally, why wings and connecting elements should not be increased in number beyond anything now in use or even considered—increased to a point which would give a size and lifting power great enough to meet any demand which we can now formulate or which the future seems likely to present.

Structurally, therefore, the problem of increased size presents three problems as follows:—(1) The structural problem of so developing the character of the elements of aeroplane construction such as wing spars, longerons, struts, ribs, &c., that with increase in over-all dimension the weight shall not increase sensibly faster than as the square of such dimension. (2) The structural problem of combining the larger elements of aeroplane construction such as wings, fuselages, or engine nacelles with their connecting structures, in such manner as to secure, for a given wing area, the minimum weight of secondary structure. (3) The aerodynamic problem of combining multiple wing elements in such manner as to reduce to a minimum the interference of one with another. This is a problem which opens fascinating possibilities to the student of experimental aerodynamics—a problem on which already some beginnings have been made, but one far from a final or as yet wholly satisfactory solution, and one on which the future development of greatly increased size and carrying capacity seems destined to largely depend.

In short, then, so far as increase in size is concerned, there seems no reason to apprehend any particular limit, or any serious difficulty on the part of the scientist and the engineer in meeting the demands of the future in these respects. The difficulties seem no greater than those which have been overcome in the case of ocean shipping as shown by the continuous development from the early beginning of the application of engine power to ocean navigation during the first half of the last century down to the mammoth floating structures of the present time; and if we may take any indication from the accelerated rate of progress which has characterised the entire history of aerial navigation, we may feel confident that we shall not have to wait a half or three-quarters of a century for a parallel development in the latter field.

(To be continued.)

A special postmark has been devised for these letters, which will become historic souvenirs.

"It is planned," says the *Daily Telegraph* correspondent, "by the aviation authorities at Montreal and Toronto to utilise this as the beginning for future aerial mail service developments, with the object, at the close of the war, when hundreds of expert Canadian military aviators return to Canada, of establishing a regular aerial mail service between Montreal, Toronto, and other important cities."

Sequel to Air Raids on Belgium.

CHARGED, among other things, with communicating reports regarding the damage caused by Allied aviation along the Bruges canal, forty-four Belgians have recently been tried at Ghent by court-martial. According to the *Echo Belge* five were acquitted, sixteen condemned to death, and the rest sentenced to imprisonment varying from two to twenty-two years.

AIRISMS FROM THE FOUR WINDS

"PLANE-POST" is the official definition of the new aerial postal service instituted in the United States.

A MUCH more important "creation," however, is the addition, which has been sanctioned by King George, to the title of our one scientific aeronautical body, to wit the Royal Aeronautical Society. Sir William Weir's announcement at the Society's meeting on Tuesday of this Royal privilege was greeted with hearty appreciation.

THOSE who seek to be first in at every first show, no matter where or what, will have an extra turn next Sunday, June 30th, at the Scala Theatre in Charlotte Street. At 3 in the afternoon will be seen for the first time some special films, under special permission of the Air Ministry, and from what we hear these films have some highly attractive features attached to them. An excellent war cause moreover will be benefited at the same time by any visitor, who secures a ticket of admission, which range from 2s. to 10s. 6d. each. This cause is the fund organised by the Aerial League of the British Empire at the special request of General Sir David Henderson, in September, 1914, for assisting the widows and other dependents of N.C.O.s. and men of the Royal Air Force, who lose their lives in active service.

No fear of any mis-fire in this afternoon show, as it is under the patronage of the Right Hon. Sir William Weir, Secretary of State of the Air Ministry, Maj-Gen. Sir F. H. Sykes, C.M.G., Chief of the Air Staff, Maj-Gen. Sir Godfrey Paine, K.C.B., M.V.O., the Master-General of Personnel, and Maj-Gen. H. T. Arbutnot, C.B., who is Chairman and Hon. Treasurer of the Fund.

THE mere association of these names with the Fund should be sufficient to ensure a bumper house for so deserving a scheme. Already, quietly, the fund has been the cause of a vast amount of relief to those most needing help, over 160 families having received material help in their distress. Naturally claims are steadily on the increase, and this Sunday matinée, it is hoped, will place the Committee in

a position to fill some of those claims as speedily as they arise. The "gate-money" will not be consumed in expenses, as the use of the theatre has been given gratuitously by the proprietor, Dr. Distin-Maddick, and the performance is being organised by Lieut. St. J. Shadwell Clerke and Lieut. E. Clive Fowler, both of the R.A.F. Mr. A. H. Varnier is Hon. Secretary to the Fund and those who are in doubt as to tickets should apply to him at the A.L.B.E., 46, Dover Street, W.1, or the Scala Theatre direct, or the usual libraries.

A MEMBER of the Canadian Expeditionary Force, writing from the Ontario Military Hospital in Kent, sends us the following suggestions in regard to "Distinctive Names for Aerial Squadrons," upon the Territorial principle. "T.S.'s" views are as follows:—

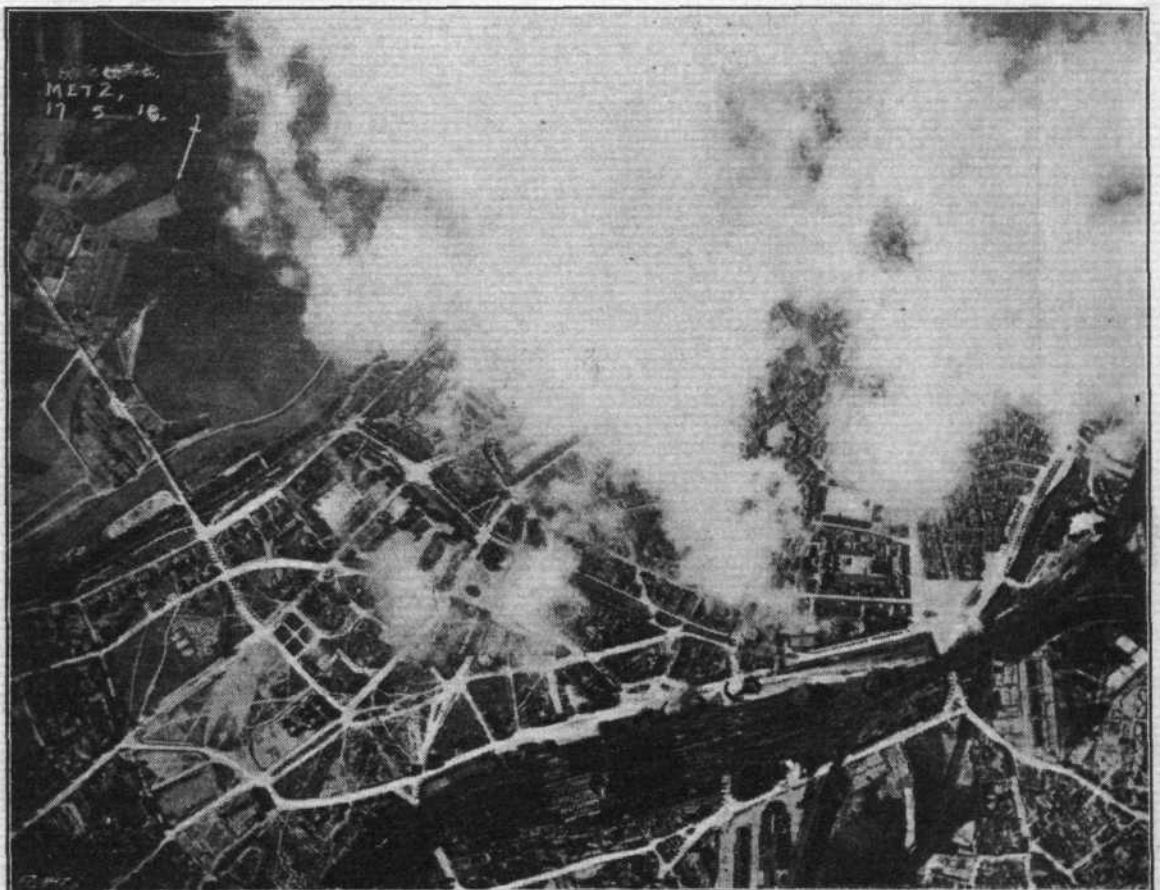
"With the Royal Air Force now established as a permanent arm of national defence, it appears opportune that distinctive names should be given to the various aerial squadrons. From daily observation of air official reports, the public are informed of the duties performed and no mention is made of the particular squadrons and personnel who are achieving the results.

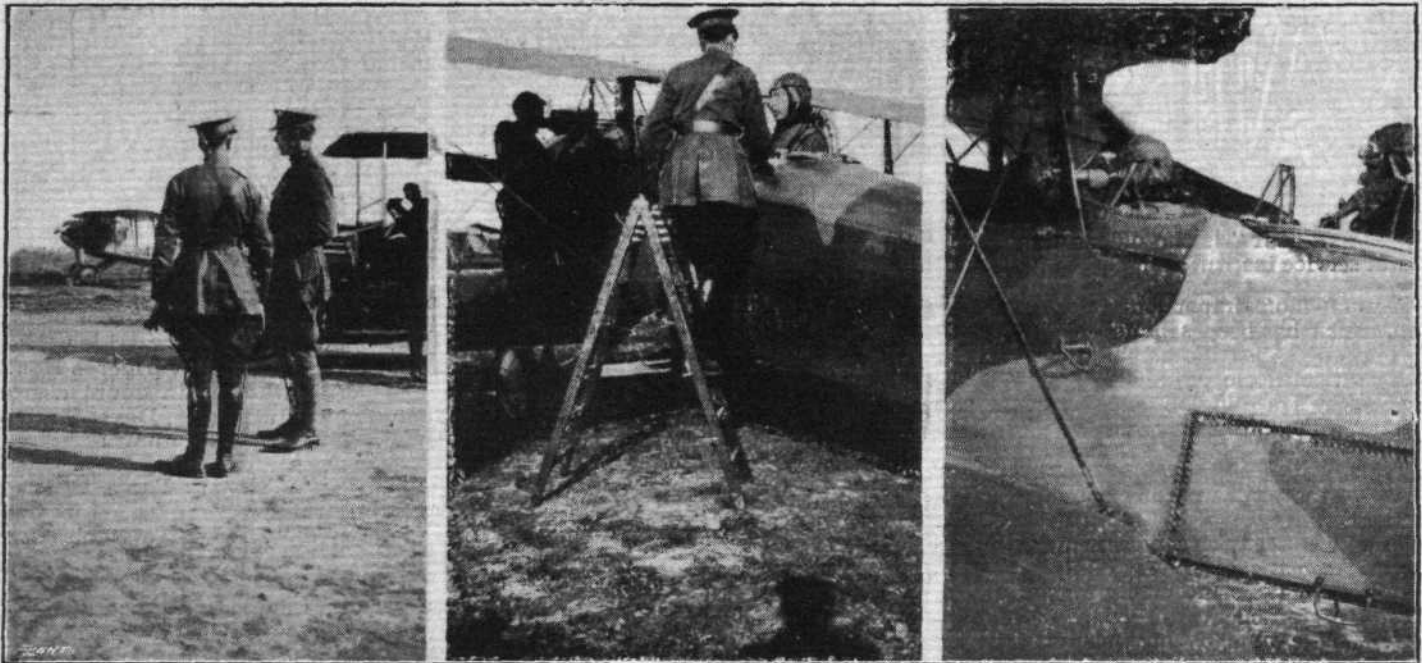
"As the Air Forces are destined to become the chief factor in maintaining national existence, it seems reasonable that they should be divided into designated units, employing practically the same principle in organisation as that of the army. For instance, there could be a number of Scottish, London, or Canadian squadrons in order that an aviator may serve with men of his own characteristics and thereby put forth his best efforts. This feature will tend to promote rivalry among the squadrons, similar to the traditional reputations that have been won by our famous battalions known the world over. It is the desire to uphold those ideals that often wins victories against great odds.

"Opinions are frequently expressed by writers and military critics that the war will be won in the air, and foreseeing the gigantic growth and development of the Aerial Forces that must eventually materialise, it seems to be the opportune moment to specifically name the squadrons, so they may build up their reputations and establish a precedent for the

Official photo.

Bombing the Huns' War Depots.—A view of Metz taken by the R.A.F. during one of its bombing raids. This shows the main railway station of Metz under actual bombing raid conditions. Note the railway station which seventeen days later was found to have been painted on the roof with a red cross, as a subsequent photograph demonstrated, this being one of the flagrant instances of the misuse by the Germans of the Red Cross symbol.





KING ALBERT OF BELGIUM REVIEWS HIS ARMY FROM AN AEROPLANE.—On the left, the King's arrival at the aerodrome; centre, the last instructions to the pilot; and on the right, the pilot giving the order to start.

future. By mentioning the squadrons in the despatches and designing special uniform badges for each, the public would soon become familiar with the personnel and achievements of this important branch of the service."

It appears that a North of England gentleman still sticks to his story that he has never been mentioned in any Honours List.—*Punch*.

Aeroplanet is the title of a new Norwegian Aeronautical journal which has been started at Christiania, Kirkegaten 8iii, and *Militærflyver* Prenerloitnant A. W. Hagtvedt, Royal

Norwegian Naval Air Service, of Horten, is the Editor, to whom we offer our wishes for a successful career for the new paper.

"PERSONS Requiring the Fire Brigade."—The Goole Urban District Council has issued the following advertisement: "Owing to the shortage of horses in the town, persons requiring the services of the fire brigade must send a pair of horses equipped with harness—including long traces—to draw the engine." The G.U.D.C. might have added the further condition that 24 hours' previous notice of any fire must also be given to ensure prompt attention.



KING ALBERT OF BELGIUM REVIEWS HIS ARMY FROM AN AEROPLANE.—The Royal plane, taken from another plane above it. Below may be seen the Belgian lines, roads, &c., and at the top of the picture the inundations.

"SUCH really wonderful work is being carried out by our fighting pilots that it should hardly be worth while disseminating official detail in such a way as to illustrate the unwisdom of "protesting too much." In a recent communication, which bears upon its surface the mark of official inspiration, upon the destruction of a German bridge by "our active airmen," the details of a recent night raid are given in support of the remarkable efficiency and skill of the bombing sections of the R.A.F. The story runs: "Along our very long stretch of river in Belgium there was only one railway bridge across which troops and munitions could pass to the front. This bridge lay 120 miles behind the German front line. On a certain day it became very important to the British Command that this bridge should be put out of use. Orders were accordingly given to a certain squadron to despatch a machine in two hours on this 280 miles trip over enemy-occupied territory. At six o'clock the pilot and the observer were told that they were to leave at eight o'clock. The machine on which they were to fly was new to both of them. It had to be examined carefully; the use of a different device had to be fully grasped; extra petrol and bombs had to be carried. The observer and the pilot had to prepare their maps, mark out the courses, and to a great extent commit the main features to memory."

AFTER this opening the adventure proceeds to a successful ending and the airmen get back to their nest in safety. But whilst one can but admire the wonderful efficiency of the pilot and his observer in cheerfully undertaking such a job on "a machine new to both of them," on which they had to grasp the use of new devices, and had to suddenly prepare maps, mark courses and what not, a glimmer of suspicion must arise in most uninformed minds as to where the efficiency comes in of the *organisation* which can land its executants into such possible quagmires of misfortune, which such a state of affairs gives every promise of accomplishing.

Apropos of nothing, the following from "The Office Window" of the *Daily Chronicle* is original to us: By means of two spelling errors, an eight-year-old schoolboy has recently indicated a new phase in the character of a deservedly unpopular monarch. He wrote: "William Rufus had a new forest maid. If anybody was found looking at his dear, Rufus had his eyes put out."

THE singular fact remains that though three years have now elapsed since Lieut. R. A. J. Warneford, V.C., met his death, no one has yet unveiled the mystery with which the tragedy was surrounded. Probably Lieut. Warneford's only "fault" was that he was fond of "stunting" at a period when the science of "aerobatics" was undeveloped, and anything out of the ordinary routine was specifically discouraged. It is no reflection on the hero's memory to state that he had been transferred from two squadrons in succession because of his daring performances in the air, and his subsequent triumph over the Zeppelin must have served as a salutary reminder to the squadron-commanders concerned that his was the sort of spirit to be cultivated rather than repressed.

WHAT actually happened on the ill-fated 17th of June, 1915, has been personally described in detail by the officer himself who was in command of the aerodrome on which Lieut. Warneford met his death. The latter had asked permission to fly back to Dunkirk with an American journalist, Mr. H. B. Needham, who was very keen on the adventure. The request was refused, however, and the pilot was ordered to return alone. He duly informed Mr. Needham of this fact, but, in order not to disappoint him of a flight of some sort, good-naturedly offered to take him up for a short trip over the aerodrome on a big Henri Farman. While aloft he may have been urged to do a "stunt," or may have acted without any prompting, this point, in the circumstances, can never be cleared up, but what actually happened was that the pilot put the machine into a vertical dive, and then straightened up. The machine was built with tubular tail-booms, which buckled under the strain and were fouled by the propeller, a fatal crash being the inevitable result.

THIS summary of the facts attendant on the catastrophe, by the way, will also serve to dispel the popular assumption that the machine concerned was the same one as that by which Lieut. Warneford brought down his quarry, "L.Z. 38." By the irony of fate, moreover, the type of machine on which he died enjoyed a long and well-deserved reputation for safety, while the one on which he attacked the Zeppelin was believed to be peculiarly dangerous. The purchasing officer, indeed, who procured a batch of them in Paris, including Warneford's, was severely taken to task in respect of his investment, but had good reason, none the less, for satisfaction when it was crowned by one of the most epic achievements of the war.

WHILE on the subject of Zeppelins it may be remarked that a little more information would be of interest than has ever been disclosed concerning the noteworthy performance of Lieut. A. W. Dipworth, who attacked a Zeppelin single-handed, on an Avro at an even earlier date than Lieut. Warneford. All that has ever been publicly stated on the subject is that Lieut. Dipworth got above the airship and dropped bombs on it, but that they went clean through the gas-bags. The Zeppelin promptly descended, but was wrecked when trying to enter its hangar, having probably sustained some damage to its controls even though the bombs did not set it on fire in mid-air. Anyhow, it was utterly destroyed, and Lieut. Dipworth certainly deserved more credit for his daring than he has ever publicly received.

ON a still earlier occasion, another British aeroplane rose above a Zeppelin, but this was in the piping times of peace. Mr. E. C. Gordon-England was demonstrating a Wright seaplane over Kiel Harbour at the time that the Kaiser was reviewing the combined British and German fleets. A Zeppelin was sailing overhead, and Mr. Gordon-England flew right above it, thereby earning the distinction of being the first Englishman to look down on a Zeppelin while in flight. In all probability the Germans did not like it!

A UNIQUE advertisement appearing in *The Globe* on June 11th last, conveys its own moral. Needless to say this inventor was *not* amongst the recent Birthday Knights.

INVENTIONS.

I am the INVENTOR and PATENTEE of TWO GUN AMMUNITION COMPONENTS which have been ADOPTED by the MINISTRY of MUNITIONS.

Millions have and are being made to my specifications.

MY LATEST INVENTION is SAVING THE COUNTRY OVER £100,000 PER ANNUM.

First patent was adopted 1916.

Second patent was adopted 1917,

and to date NOT ONE PENNY COMPENSATION FOR ROYALTIES HAS BEEN PAID.

NOW MY FIRM ARE NOT GIVEN A CONTRACT EVEN TO MAKE MY OWN PATENTED ARTICLE.

Thus is enterprise and invention encouraged in the country.

BASIL KNIGHT,

KNIGHT and COLE, LTD.,

1-2, Radsworth Street, E.C. 1.

HERE is a true anecdote of Farnborough, which is merely connected indirectly with aviation, bearing in fact more on the great drink problem. An R.A.F. officer was lunching at a local hotel, accompanied by his wife and a daughter aged apparently four. "Look, Mummie," said the latter, "there's two jugs of water!" "Yes, dear," was the reply, "don't talk so loudly." "I should like some out of the big jug, please." "But the water is just the same in both jugs, darling." "Yes, but the big one makes the funniest noise!" The correspondent who overheard this delightful remark deduces that her father must be an aero-engine expert.

GOTT strafe those catch head-lines. "Milk White Paper" caught our eye the other evening, and instantly visions of the paper famine solution floated before us, and a hope arose of being once again able to get back to a printing paper of quality, mutually to the benefit of ourselves and our readers. But alas, when we came to dive deeper into this unexpected turn in the supply of paper it was revealed that it was a reference to the Astor Committee Report on the Milk Question, which will be presented to Parliament as a White Paper, probably at the beginning of this week.

FROM information reaching London this week it would appear as if the proposed Swedish aerial service, for which a company was formed in May, backed by the Stockholm Handels Bank, the Skandinaviska Kreditaktiebolag and the Stockholm Enskilda Bank, with a capital of 10,000,000 kr., will not be started until the end of the war.

In the meantime a meeting was held on June 19th of financiers, technical experts, &c., to give further consideration to the subject of the establishment by the company of aerial communication in Sweden and abroad. In addition to the banks already mentioned the following were represented:—The Central Gruppens Emissionsaktiebolag, the Svenska Emissionsaktiebolag and the Aktiebolag Emissionsanstalt. The meeting was presided over by M. Wallenberg, a well-

known bank director, and a committee was appointed to inquire into the subject and to make a report.

WHAT the Iroquois think of Lieut. Falchaire, a French airman who flew from Washington to Montreal recently, and who has given an exhibition flight at the Caughnawaga Indian Reserve, is embodied in the name, "Giant War Eagle, Chief of the Deep Sky," under which the Lieutenant was admitted to the tribe.

How this war is bringing our heroes of the trenches to the front has been exemplified again and again, and individual deeds by the tens of thousands must ever live in history. Air-raids have also been responsible for many a surprise in the discovery of home heroes in varying grades of life. It is left to Miss Eva Moore to have discovered and noted still another case of chivalry for which these nocturnal episodes are responsible. The happenings in this particular instance were described by Miss Moore last week at a meeting at the Mansion House in aid of the Theatre Girls' Club. A girl, on an omnibus, was telling her friend her experience of an air raid. At the sound of the first maroon a soldier near her put his arm round her waist and when the second maroon

went off he kissed her. What the girl wanted to know from her friend was if she met the soldier again, should she bow to him or wait for him to recognise her?

Miss Moore who said the soldier had done what he thought was helpful—and it was a chivalrous action—pointed the moral by asking for the same kind of support for the club. We venture to think there should be no lack of response.

IN Hunland they have a Ludendorff Fund for Crippled Soldiers. Aviation, as in this little island, has been pressed into the service to help forward the wounded men's fund, an aircraft works at Travemünde in the Baltic, having instituted rides for seaside visitors this summer in aeroplanes, either overland or the sea, at 50s. per trip.

ONE who has been watching recent base-ball games near London suggests that here is the ideal costume for special constables and others who have to be in the streets on air-raid nights. This certainly sounds more simple than the proposal of another reader that the safest way to avoid *les Oeufs Gothas* would be to don a diving suit and get into the Serpentine or any other liquid shelter available, where the risk of fire and explosion would be reduced to a minimum.

TRADE PARLIAMENTS AND THEIR WORK.

By ERNEST J. P. BENN, Chairman Industrial Reconstruction Council.

X.—THE BIG IDEA IN BUSINESS.

THERE will be no lack of material to put upon the agenda paper of the Trade Parliament when once it gets going. Difficulty is more likely to arise owing to the number of questions that the delegates of the various associations and unions will desire to bring up for discussion. When once it is admitted that there is a common interest in a trade which all parties may combine to promote, the possibilities of action widen so rapidly that Trade Parliaments will have to exercise care and discretion in the subjects to which they will devote the limited time at their disposal. It is comparatively easy, as I have done in these chapters, to take a subject at a time and state the various problems that arise in connection with it. In such matters as rationing, demobilisation, the disposal of Government stores, or science or education, the scope of the Trade Parliaments is well defined and obvious, but the work of these bodies will extend far beyond the limits of these special branches of work. Their greatest interest is to be found in the fact that they are the embodiment of the new spirit in industry which is the definite outcome of the present war. When the economic history of the last four years comes to be written, it will be pointed out that a revolution, far more important than the industrial revolution a century ago, was quietly wrought in the minds of the people while the guns of the nations were roaring on the battlefields of Europe. Whether it is the result of the comradeship of the trenches or of the general awakening to realities that has taken place since 1914, it is undoubtedly the fact that we are beginning to look upon trade and industry from an entirely new point of view. Instead of the sordid ideas of the past, the sentiments of the future will insist upon the raising of our vocational activities to a much higher place in the social order. Trade as a national service; industry as a social obligation; production as the source of all prosperity; waste in materials or methods, in goods or in effort as a crime against the community. These are the sentiments which are generally spreading through the ranks of both employers and employed, and which are having the effect of changing the traditional point of view of both parties.

It must not be assumed from all this that the workers will in future cease to take an interest in the rate of wages paid or that employers will no longer be concerned with the percentage that can be obtained upon their capital. The reverse is, of course, the case. Labour will never go back to the wages of 1914, while unless the rate of interest upon capital is higher than it was the shortage of that commodity will be sorely felt by industry. Trade of the future must produce more to all parties engaged in it than in the past. In asking, therefore, both employers and employed to shoulder national and social obligations which they have not recognised as theirs in the past, there is no suggestion that they should sacrifice any of that reward which they are entitled to look for as a result of their efforts. Just as by subscribing to War Loan one renders a service to the country and makes a good personal investment, so by taking a national point of view in regard to one's business one may promote the interests of the community and at the same time strengthen one's personal position. The solid fact is that our trades, as trades, have never been given a real chance in the past.

They have been torn to pieces between contending parties. To begin with, the various firms or companies engaged in a trade have wasted a very large proportion of their energies in senselessly fighting one another, while Labour and Capital have entrenched themselves in two opposing camps, and, at the expense of trade, have devoted a great deal of time, money, and effort to squabbling. A simple illustration will make this point clear. The American Government recently conducted an enquiry into the condition of the pottery trade in Great Britain, Germany, and America, and produced a volume of statistics and information which is worth the study of every business man. It is shown in this volume that Labour and Capital between them take 58 per cent. of the product of the trade in America and 44 per cent. here. In Great Britain Capital gets 5 per cent. and Labour 39 per cent., and in America Capital takes 10 per cent. and Labour 48 per cent. If the English trade unions were to succeed in securing the whole of the product of the industry as at present carried on they could only get 44 per cent., whereas their American cousins are to-day taking 48 per cent., and there is still a handsome margin left for Capital. The present suggestion is simply that Labour and Capital should put their heads together, as, indeed, they have done in the National Pottery Council, in order to see how they can contrive to get the superior return from their trade that is secured in America. By combined effort and by scientific study of all the circumstances they can actually secure between them a bigger gross figure than that over which they were inclined to squabble in the past.

There is a more serious aspect even than this. With the American trade organised as it is, and with the statistics and information and science which it has at its disposal, it is able not only to take 58 per cent. of the product for itself, but to threaten very seriously every market of the world. These are some of the considerations that have brought Labour and Capital together in the pottery business and that led to the establishment of the National Pottery Council, and I do not doubt that, as a result of that movement, the English pottery trade will not only very much improve the personal position of all those who depend upon it, but will be able to re-establish the paramount position of English pottery in the markets of the world. Thus we are gradually beginning to get a new conception of industry, and we are beginning to realise the truth that the whole is greater than the part. We are beginning to understand that if we would promote our individual interests, the best way to achieve that object is to join hands with others similarly situated and work together for the common good. Patriotism and self-interest run hand in hand in this matter, because while Labour desires to improve its standard of living and Capital is actuated by the same sort of motives, the nation which contains both is in urgent need of a great increase in the rate of production of wealth. If industry, instead of consisting of a lot of factions of individuals striving for their own ends, were transformed into solid masses of citizens working for the national good, the cost of the war—gigantic as it is—would not present those difficulties which economists, who base their theories upon past experience, are so constantly putting before us.

Personals

Casualties.

Lieut. KENNETH TURNER CAMPBELL, R.A.F., who was killed in action on June 17th, aged 19, was the only son of Lieut.-Col. Spurgeon Campbell, C.A.M.C., and Mrs. Campbell.

Flight Lieut. ROBERT CHRISTOPHER PACKE, R.N.A.S., who was killed on June 21st, when on patrol duty, aged 19, was the elder son of Mr. and Mrs. Vere Packe, of Geldeston Hall, Norfolk, and Sullivan House, Falkland Islands.

Capt. IAN HENRY DAVID HENDERSON, M.C., who was killed on flying duty on June 21st, was the only son of Lieut.-Gen. Sir David Henderson, the former Director-General of Military Aeronautics. Captain Henderson, who was only 21 years of age, took his commission in the Argyll and Sutherland Highlanders in January, 1915, and transferred to the R.F.C. in August, 1915. He was gazetted captain in July, 1916.

Second Lieutenant GEORGE HUBERT KEMP, R.A.F., who was killed in aerial fighting on June 1st, aged 20, was the second son of Mr. and Mrs. G. Kemp, of Westcombe Park, and was educated at the Roan School, Greenwich. Before joining the forces he was engaged in the Port of London Authority. He received a commission in the Durham Light Infantry in 1917, and was wounded at Chérisy. He transferred to the R.A.F. in 1918, and had gained both his wings. He was shot through the heart in a fight with a number of German aircraft, but his pilot descended within the Allied lines. Lieut. Kemp had been recommended for an award. Of his two brothers, one is on active service in France, the other is a prisoner in Germany.

Sec. Lieut. FLEMING NEWTON, R.A.F., who was reported missing on May 9th, and now known to have been killed, was the second son of Mr. and Mrs. Isaac Newton, of Bayham House, Tonbridge. His age was 19.

Lieut. CHARLES REAY, D.L.I. and R.A.F., who was killed in action on May 27th, aged 24, was the eldest son of Mrs. REAY COFFEY, Kensington.

Lieut. WILLIAM ROBIE BOWICK, R.A.F., who died on June 11th as the result of an accident, aged 20, was the eldest son of J. R. and Isabel Bowick, Bedford.

Capt. VERNON BUSBY, R.A.F., who was accidentally killed while flying over London on June 8th, aged 23, was the eldest son of Mr. and Mrs. George Busby, of Fairfield, Selly Hill, Birmingham. He was educated at King Edward's School, Birmingham, where he was a member of the O.T.C. He was an expert motor cyclist and rode in two Tourist Trophy races. He volunteered for active service abroad on August 6th, 1914, and going to France with the first Expeditionary Force, he was made engineer of his unit. He was wounded in the battle of Mons, and in November, 1914, was given a commission in the Royal Engineers, stationed at Aldershot and at Dunstable, where he held a temporary staff appointment. He was transferred to the R.F.C. in 1915 and again went to France, where he remained until December, 1916. An injury to his leg kept him in hospital in this country for several months, and since the early part of 1917 he had been employed at the Air Ministry. During the last few months he was engaged on special flying work.

Capt. HERBERT JAMES HAMILTON, M.C., R.A.F., who was accidentally killed in a flying accident on June 13th, aged 23, was the second son of Mr. and Mrs. A. E. Hamilton, of 59, Ridge Road, Stroud Green. He was educated at the Stationers' Company School, and mobilised with the Artists' Rifles in the early stages of the war, proceeding to France in October, 1914, where, after twelve months, he was given his commission and drafted into the Duke of Cornwall's Light Infantry. After serving on the Somme for six months, he transferred into the R.F.C., acting as observation officer for nearly six months, and obtained his pilot's certificate, in the latter part of 1916, and was appointed Flight Instructor at Montrose. He went back to France as temporary Captain, which promotion was confirmed on November 25th of last year. In the big push on March 21st he gave yeoman service in low flying over the enemy, and was personally commended by the King. For his services there he received the M.C., and three others of his flight, each having been trained by Capt. Hamilton, gained similar distinction.

Sec. Lieut. LESLIE GRANTHAM HEIGHAM-PLUMPTRE, Bedfordshire Regt., attached R.A.F., who died on June 4th of

injuries accidentally received on June 2nd, aged 20, was the adopted son of Mrs. Henry Heigham, of 43, Redcliffe Square, S.W. 10. He was educated at Westminster and Sandhurst, and was gazetted to the Bedfordshire Regt. in September, 1917, being attached to the R.A.F. three months later. He was wounded on March 22nd, and returned to the front on May 19th.

Lieut. BRIAN WILTON MEADWAY, Northamptonshire Regiment and R.A.F., who was killed on June 4th while flying in Hertfordshire, aged 22, was the only child of Mrs. Meadway and the late G. H. Meadway, grandson of John Wilton, of Heathlands, Chadwell Heath, and great-grandson of George Wilton, of H.M.S. "Agamemnon" (Trafalgar, 1805), was educated at St. Lawrence College, Ramsgate. He joined the U.P.S. Brigade in September, 1914, received his commission in the Northamptonshire Regiment in January, 1915, and went to France in the following September. He was twice wounded. In September, 1917, he joined the R.F.C. and became an instructor.

Capt. S. C. PITHER, K.O.S.B. and R.A.F., who died on June 11th, of accidental wounds abroad, was the second son of the late Fras. L. Pither, of Tollington Park, N.

Lieut. NORMAN SCOTT, R.F.C., who was killed in an aeroplane accident at Beverley, aged 24, was the third son of Police Supt. Scott, of the South Lonsdale Division, Lancashire County Constabulary, the senior police superintendent in Lancashire. For five years before the war he was a wireless operator at Toronto. In August, 1915, he joined the 3rd University Corps of Princess Patricia's Canadian Light Infantry, and had been three years in France attached to Headquarters Signalling Staff. In June, 1916, he was awarded the Military Medal for holding to his duties as signaller during a heavy bombardment and maintaining communication with the first line. Afterwards he was wounded, given his commission, and transferred to the Royal Flying Corps.

Lieut. DONALD HUMPHREY SESSIONS, M.C., R.A.F., who was killed on June 20th whilst flying in Kent, was the youngest son of Mr. and Mrs. Herbert Sessions, Quedgeley Court, near Gloucester.

Lieut. PHILIP GEORGE STOKES-REES, R.A.F., who died on June 18th, the result of a flying accident, aged 19, was the son of Admiral and Mrs. Stokes-Rees.

Sec. Lieut. LOUIS WILKINSON, R.A.F., formerly a member of the reporting staff of the *Lancashire Daily Post*, has been killed in a flying accident in Scotland. He was a son of the Borough Engineer, Burnley, and joined the Flying Corps upon attaining the age of 18 last October, and received his commission in December last, graduating for wings last week.

Lieutenant PATRICK BRYAN SANDFORD WOOD, R.A.F., who was killed in an aeroplane accident on active service on May 24th, was the elder son of Dr. Charles Wood, of Caius College, Cambridge, and Mrs. Wood. He was born in 1899, and was educated at the King's College Choir School, Cambridge, and afterwards at Rossall School, where he was a member of the O.T.C. He joined the Royal Naval Air Service in September, 1917, and left England on March 24th last to go to his active service station abroad. Lieutenant Wood was a keen cricketer, becoming a member of the Rossall School team.

Married.

A marriage has been arranged, and will shortly take place, between Captain FRANCIS R. ALFORD, M.C., R.A.F., and ROSALIE FRANCESCA, daughter of Mr. and Mrs. TANKERVILLE CHAMBERLAYNE, of Cranbury Park, Hampshire.

Lieut. R. WALTER ANDERSON, R.A.F., of The Garlands, Scarborough, and The Croft, Stockton Lane, York, was married at Holy Trinity Church, Scarborough, on June 22nd, to EILEEN, daughter of Mr. and Mrs. EDWARDS, Scarborough.

The marriage between Captain A. DOUGLAS S. BARR, R.E. and R.A.F., eldest son of Professor Archibald Barr, LL.D., and Mrs. Barr, of Western of Mugdock, and MAUDE CHARLOTTE, younger daughter of Mr. and Mrs. H. ARNOLD WILSON, Underfell, Milngavie, will take place in Milngavie and Baldernock U.F. Church on Tuesday afternoon, July 9th, at 1.30 p.m.

A marriage has been arranged, and will shortly take place, in Paris, between Lieutenant ROGER BERARD, of the French Air Service, (Croix de Guerre, with palm leaf, and D.C.M.)

eldest son of the late Philippe Berard, of the French Diplomatic Service, Chevalier of the Légion d'Honneur, and MARGUERITE, only daughter of the late ALBERT DE MIMONT, of Paris.

The engagement is announced between Captain JAMES CLINKSKILL, R.A.F., son of the late Alfred A. F. Clinkskill, Glasgow, and JESSIE HAY, eldest daughter of the late PETER ROBERTSON and Mrs. Robertson, Ingliston, Mount Vernon, Glasgow.

The marriage took place at St. Margaret's Church, Westminster, on June 19th, of Lieut. HUMPHREY VERDEN ROE, R.A.F., formerly Manchester Regiment, and Miss MARIE CARMICHAEL STOPES, D.Sc., Ph.D., Fellow and Lecturer in Palaeobotany at University College, London. The bridegroom, who was wounded at the front some time ago, is one of the pioneers of airmanship, having helped to found the firm of A. V. Roe and Co.; and the bride is well known in the scientific world.

Lieut. WILLIAM EDWIN SANSOM, A.F.C., of Melbourne, Australia, was married on June 20th, at St. Luke's Church, Kew Gardens, to DORIS MURIEL MARJORIE, daughter of the late W. H. BLEARS, solicitor, Manchester, and Mrs. CROCKER, and step-daughter of Dr. Crocker, Parkside, Richmond, Surrey.

Lieut. WILLIAM HARVEY SPARGO, Liverpool Regiment and R.A.F., second son of Mr. and Mrs. W. H. Spargo, of Rhodesia, South Africa, was married on June 18th at St. Peter's Church, Rock Ferry, Cheshire, to ALICE ELIZABETH, second daughter of Mr. and Mrs. Frederick FURNESS, of Rock Ferry.

Maj. ERNEST TURNER, R.A.F., youngest son of the late William Turner, Esq., and Mrs. Turner, of Kingston, was

married on June 18th at St. Thomas's Church, West Hill, S.W., to NORA, elder daughter of Mr. and Mrs. Frederick Linwood BAMFORD, of 70, Wimbledon Park Road, S.W.

To be Married.

The engagement is announced of Lieut.-Col. C. H. B. BLOUNT, M.C., The Queen's and R.A.F., son of the late Maj. C. H. Blount, R.A., and Mrs. Blount, of Felixstowe, and BEATRICE JOAN, second daughter of the late JOHN LEMPRIERE, of Melbourne, Australia, and Mrs. Lempriere, of 9, Philbeach Gardens, S.W.

The marriage of ALEXANDER NOEL DAVID, I.F.S., R.A.F., only son of Mr. A. J. David, K.C., and Mrs. David, of 525, Finchley Road, and VIOLET NORAH, elder daughter of Mr. and Mrs. J. Gregory JONES, of 2, Parsifal Road, Hampstead, will take place at St. Mary's, Holly Hill, Hampstead, on July 2nd, at 2.30.

A marriage has been arranged, and will shortly take place, between Lieut. LEWIS HUGH MACKAY, the Cameronians and R.A.F., only son of Mr. and Mrs. Lewis G. M. Mackay, of Whitecroft, Beckenham, and Miss MADGE HODGKINSON, only daughter of the late W. A. T. Hodgkinson, of Ilkley, Yorks, and Mrs. Hodgkinson, of Wembley Park, Middlesex.

A marriage has been arranged, and will shortly take place, between Maj. CYRIL WIGRAM, R.A.F., youngest son of the late Henry James Wigram, of Northlands, Landford, and OLIVIA MARIE, daughter of the late Maj.-Gen. W. R. TRUMAN and Mrs. Truman, of Winterbourne, Bonchurch, I.W.

A marriage has been arranged between RAWDON SHEARS PAYNE, R.A.F., late of the Royal Irish Regiment, son of the late Capt. Ludlow Payne, of Upton House, Upton, Co. Cork, and SYLVIA, daughter of Mrs. C. B. HARVEY, East Burnham Lodge, Slough, and the late Maj. C. B. Harvey, Royal Hussars.



THE AIR SERVICES. TAPPING A VALUABLE VEIN.

Most magnificent of all in this war have been the ordinary British people; and no less splendid, according to their strength—and then a bit over—the people's boys. While England lives, the name of the boy Jack Cornwall will live imperishable as Nelson's own. And he has had his counterpart in the Jakes and Lewins of drum and fife of older days and other wars than this. So how can our England die that breeds them still?

But there are others to whom opportunity has given no more than the honourable prospect of being one day England's full-grown defenders, her gentlemen-at-arms. They are the Cadets whose honour is not less that they must await their proving; and meanwhile show continually that nine-tenths of Service is anything but active warfare. The mark of this we see in the appointment of H.R.H. the Prince of Wales as Cadet Colonel-in-Chief of the Cadet Corps of the United Kingdom, which once more calls attention to the good, work quietly and gratuitously done for their country by our working boys.

For this force of Cadets is no new thing. Actually, it was begun some thirty years ago by philanthropic persons working among the labouring classes in large centres; and visualising to some extent which years later was to be so marvellously elaborated by the Chief Scout, that out of the provision of distraction from surroundings of an object other than idleness, come discipline, and honour, and all that goes to the making of men, irrespective of environment.

But it may be that the very success of the Scout movement lessened the influence—perhaps even the growth—of the Cadet Forces, until 1916, when the formation of the National Association of Cadet Training was begun to forward the scheme prepared by Col. Sir Charles Wakefield when Lord Mayor of London, on the lines that had been already approved by Lord Kitchener, Lord Derby, and the present War Secretary, Lord Milner; and it seems probable that before long the War Office will embody in its system for the reorganisation of

the Cadet system most of the suggestions initiated by Sir Charles Wakefield. There will be material enough, for even if we leave Ireland out of consideration for the moment, there must be at least a couple of million lads of trainable age in England and Scotland who would be given this privilege of cadetship to train them to become not only able defenders of their country, but the better citizens on that account. For when Frenchmen not only give three years service to their country in the ranks, ungrudgingly, and afterwards twenty-eight days yearly for several years, we imagine that awakened British youth will account this privilege no less an honour.

Now, since our aerial supremacy must be maintained, equally with that of our navy, less in doubt, we imagine that Sir Charles Wakefield's well-known interest and authority in aviation should make for useful results in connection with the Cadet Forces. His prophecies, it is true, have not been his alone, as to the development of aircraft, both for war and peace-time functions. But he has the honour vouchsafed to few prophets, not only of never having been wrong, but of having some of his leading predictions verified early in his own time. The speed he anticipated of 200 miles an hour is well on the way towards achievement, and his idea of postal services by aeroplane are now well established in the U.S. and many other countries; one, in fact, being due to start this week between France and Corsica. Again, one of his own staff, Mr. D. W. Thorburn, not only exemplified his contention—that "it would be possible to fly to Paris to do business in the morning and be back in time for dinner," but made one of twenty-one passengers on a Handley Page machine carried to 7,000 feet, and one of six who reached the world's record altitude of 16,500 feet on a similar machine.

Therefore, we may depend upon it that Sir Charles Wakefield—so notably the initiator of the revival of the Cadet Forces, and so prominent in British aviation—will see to it that a due proportion of the Cadets are given every opportunity of joining the aerial branch of H. M. Service.



A Swiss Aerial Lighthouse.

THE efforts of the Swiss authorities to mark their frontier, referred to from time to time in "FLIGHT," are taking tangible shape. A Swiss Federal cross, lighted with electricity, over 50 yards in dimensions, has been installed on a plateau near the Castle of Porrentruy, near the Franco-Swiss-German borders, for the guidance of belligerent aeroplanes. It was illuminated for the first time on Saturday night, June 15th, says the *Times* correspondent at Berne.

Germans Fly to Denmark.

On June 20th, an Albatros aeroplane landed at Valby, near Copenhagen, and the two occupants, who were in mufti, stated they had flown from Johannisthal and wished to be interned in Denmark. Another machine which started at the same time came down on the Island of Langeland. They said they had been fired on by German warships outside Falsterbo. One of the four airmen is said to be Professor Nicolai, author of a psychological work on the war.



The British Air Service

PER ARDUA AD ASTRA

The Royal Air Force.

London Gazette, June 18th.

The following temporary appointments are made at the Air Ministry:—
Staff Officer, 1st Class (Q.).—A. Sykes, O.B.E. (Temp. Lieut.-Col. in Army), and is granted a temp. commn. as Lieut.-Col.; April 15th.
Staff Officer, 2nd Class (S.).—Capt. (Temp. Maj.) V. Ward-Brown, M.C.; May 20th.

Staff Officer, 4th Class (S.).—Sec. Lieut. J. Keyes, and to be Temp. Lieut. while so employed; May 26th.

The following temporary appointments are made:—

Staff Officers, 2nd Class.—And to be Temp. Maj., if not already holding that rank (Air):—Capt. G. C. Anne, Capt. T. E. Longridge; April 1st. (Q.) Maj. J. W. Allsop; April 20th. (P.) Capt. L. M. P. Sullivan; June 11th.

Staff Officers, 3rd Class (Air).—Capt. E. N. E. Waldron; April 1st. Lieut. (Temp. Capt.) E. D. Cole; June 8th. (P.) Capt. (Temp. Maj.) H. F. A. Gordon, and to relinquish his temp. rank; May 9th. Lieut. J. A. D. Wallis, and to be Temp. Capt. while so employed; May 15th.

Flying Branch.

Maj. J. A. Cunningham to be Temp. Lieut.-Col. while employed as Lieut.-Col. (A. and S.); June 2nd.

Lieuts. to be Temp. Lieut.-Cols. while employed as Lieut.-Cols. (K.B.):—(Temp. Maj.) S. Bell, (Temp. Capt.) O. A. Butcher, D.S.C.; May 22nd.

Lieuts. (Temp. Capt.) to be Temp. Maj. while employed as Maj. (A. and S.):—A. J. M. Clarke; April 1st. J. B. Solomon, M.C.; April 13th.

Lieuts. (Temp. Capt.) to be Temp. Maj. while employed as Maj. (K.B.):—E. A. O. Auldjo-Jamieson, A. W. Cassy, H. E. Crawford, J. de Francia, J. H. D. Grant, M. Lyon, H. C. Morris, R. S. Smith, E. Willis; April 24th.

Lieuts. (Hon. Capt.) to be Temp. Maj. while employed as Maj. (K.B.):—P. H. Hepburn, J. Wann; April 24th.

Lieuts. to be Temp. Capt. while employed as Capt. (A. and S.):—R. Halley, E. G. B. Morton, S. E. Siedle; June 5th. J. D. de Pencier; June 7th. E. W. Fletcher; June 8th. F. J. Davies, N. P. Davis; June 9th.

Lieuts. (Hon. Capt.) to be Temp. Capt. while employed as Capt. (A. and S.):—A. W. I. Ashe, E. G. Hopcraft, J. F. Horsey, J. G. Ireland, W. R. Kenny, A. R. T. Pison, G. H. Simpson, L. H. Wilkins; May 1st. R. E. Deau; June 6th.

Lieuts. to be Temp. Capt. while employed as Capt. (K.B.):—(Temp. Capt.) T. F. Morris, (Hon. Capt.) A. J. O'Reilly, (Hon. Capt.) W. H. Sharpe; April 24th.

W. Wallace (Lieut., actg. Capt., R.F.A., T.F.) is granted a temp. commn. as Lieut., and to be Temp. Capt. while employed as Capt. (K.B.); May 25th.

R. H. Galloway (prob. Flight Officer, late R.N.A.S.) is granted a temp. commn. as Sec. Lieut. (A. and S.); June 2nd.

Temp. Sec. Lieut. H. W. Petter (late Gen. List, R.F.C., on prob.) is confirmed in his rank as Temp. Sec. Lieut. (A. and S.); April 3rd.

Temp. Sec. Lieut. W. Thornton (late Gen. List, R.F.C., on prob.) is confirmed in his rank as Temp. Sec. Lieut. (K.B.); April 1st.

Temp. Sec. Lieuts. (late Gen. List, R.F.C., on prob.) are confirmed in their rank as Temp. Sec. Lieuts. (Obs. Officers):—A. Slinger; May 2nd. L. F. Thurlow; May 7th. M. B. Joseph; May 8th. E. Cooke; May 9th. H. P. Bennett, J. B. Sanders, A. Todd, A. W. Baker; May 14th. S. Griffin, A. S. Withers; May 17th. F. F. Collins, A. C. Howell-Jones, P. Hughes; May 18th. H. S. G. Palmer, T. O. Wrightson; May 19th. F. J. D. Hudson, S. Davidson, N. B. Harris, D. K. Moore; May 20th. D. R. Bradley, L. G. Cocking, T. B. Dodwell, E. D. Deck; May 23rd. A. Spotswood, A. R. Crosthwaite, S. H. Hamblin, D. C. Burke, A. C. Clinton; May 26th. E. Hardcastle, F. J. Ralph, H. C. Grimes, F. B. Sagar; May 27th. W. A. F. Jackson, H. H. Watson, J. D. Parker, N. McL. Hill, W. N. Van Someren; May 28th. F. S. E. McRae, H. N. T. Pearson; May 29th. G. D. Knighton, C. S. Jefferson, S. E. Grand, F. R. G. Spurgin, T. Elliott; May 30th. J. H. Hay, C. E. Pullen; May 31st. R. C. McAulay, W. G. Duncan, E. W. Tatnall, F. H. McNay, A. F. Sherwood, A. W. G. Luke, H. H. French; June 1st. J. A. Weller, T. D. Fitzsimon; June 2nd. E. J. Clark, A. G. Thistle, A. O. Fraser, A. J. Inkster; June 3rd. J. W. Benton; June 4th. F. E. Donkin; June 5th. J. E. Weston, C. Wealthall; June 6th.

The following are granted temp. commns. as 2nd Lieuts., Obs. Officers:—W. Duce (Lieut., Lond. R., T.F.), and to be Hon. Lieut.; April 24th. C. V. Carr (Sec. Lieut., W. Rid. R., T.F.); April 28th. T. R. G. Cooke (Sec. Lieut., E. Kent R., T.F.); May 1st. C. B. Whyte (Temp. Sec. Lieut., R. Scots); May 2nd. A. J. Melanson (Lieut., Can. For. Corps) and to be Hon. Lieut.; May 8th. E. B. Lewis (Sec. Lieut., R. Fus., S.R.); May 9th. A. V. Bollins (Temp. Sec. Lieut., L'pool R.) May 11th. H. B. B. Wilson (Lieut., Glasgow Yeo, T.F.), and to be Hon. Lieut.; May 14th. A. A. Malcolm (Sec. Lieut., Lrs.); May 16th. N. F. Penruddocke (Lieut., A.S.C.), and to be Hon. Lieut.; May 17th. W. Sussman (Temp. Sec. Lieut., W. Rid. R.); May 18th. J. K. Clarke (Temp. Sec. Lieut., attd. Conn. Rang.); May 19th. J. S. Muir (Sec. Lieut., High. L.I.), H. M. Moodie (Sec. Lieut., R. Highrs.), C. W. T. Colman (Sec. Lieut., C. Gds., S.R.); May 23rd. W. H. Mason-Springay, M.C. (Temp. Lieut., E. Kent R.), and to be Hon. Lieut., W. R. Patey (Temp. Sec. Lieut., R. Ir. Rif.), S. Jackson, M.C. (Lieut., R.F.A., T.F.), and to be Hon. Lieut., T. H. Lewis (Temp. Sec. Lieut., Lan. Fus.); May 24th. H. Booth (Temp. Sec. Lieut., W. York R.), J. C. Anderson (Sec. Lieut., R.G.A., S.R.), B. E. Scott, M.C. (Lieut., Can. F.A. C.E.F.) and to be Hon. Lieut., R. Lean (Sec. Lieut., High. L.I., T.F.), G. H. Kemp (Temp. Sec. Lieut., Durh. L.I.); May 26th. B. W. Wilson (Sec. Lieut., Lond. R., T.F.), D. Gale (Temp. Capt., Lan. Fus.) and to be Hon. Capt., R. I. Aslin (Lieut., Lond. R., T.F.) and to be Hon. Lieut., E. A. Collis (Temp. Lieut., R.E.), and to be Hon. Lieut., N. W. Helwig (Lieut., Cent. Ont. R., C.E.F.) and to be Hon. Lieut., B. A. Tussand (Sec. Lieut., Glouc. R., T.F.), E. Walker (Sec. Lieut., W. Rid. R., T.F.); May 27th. H. A. Coysch (Sec. Lieut., R.G.A., S.R.), H. Rhodes (Temp. Sec. Lieut., attd. York R.), W. Dixon (2nd Lieut., Sea. Highrs., S.R.), R. H. Norris (Sec. Lieut., North'd Fus., S.R.); May 28th. G. E. Bullock (Lieut., N. Staff. R., T.F.) and to be Hon. Lieut., J. W. Pryor (Temp. Lieut., S. Lan. R.) and to be Hon. Lieut., H. S. Collett (Temp. Lieut., Suff. R.), and to be Hon. Lieut., L. E. O. Lounds (Lieut., W. York R., T.F.), and to be Hon. Lieut., A. Briercliffe (Lieut., Lan. Fus., T.F.) and to be Hon. Lieut., A. V. Collins (Temp. Lieut., attd. L'pool R.) and to be Hon. Lieut., C. W. Wridgway, (Sec. Lieut., Midd'x R.), A. West (Temp. Lieut., A.S.C.) and to be Hon. Lieut., J. C. Batty (Temp. Lieut., attd. Durh. L.I.), and to be Hon. Lieut., T. W. Moore (Temp. Lieut., R. Ir. Rif.), and to be Hon. Lieut., A. P. Ledger (Temp. 2nd Lieut., R.W. Kent R.); May 29th. F. Birkett (Temp. 2nd Lieut., Rif. Brig.), S. C. Shillingford (Temp. Lieut., R. Fus.), and to be Hon. Lieut., E. Biggs (Temp. 2nd Lieut., K.R.R.C.), M. Ross-Jenkins (Temp. Sec. Lieut., Glouc. R.); May 30th. H. C. Laker (Temp. 2nd Lieut., Shrop. L.I.), T. Foster (2nd Lieut., R.F.A., T.F.), F. C. Peacock, M.C. (Sec. Lieut., R.F.A.), R. H. V. R. Scherk (Lieut., Cent. Ont. R., C.E.F.), and to be Hon. Lieut., F. B. Denison (Lieut., Cent. Ont. R., C.E.F.), and to be Hon. Lieut.; May 31st. R. W. Harvey (Lieut., Dorset R., S.R.), and to be Hon. Lieut., M. C. Sexton (Temp. Lieut., attd. L'pool R.), and to be Hon. Lieut., E. G. Thomas (Sec. Lieut., R.G.A., S.R.), J. T. Thursfield (Temp.

Sec. Lieut., R. War. R.), A. Gilchrist (Temp. Sec. Lieut., attd. Rif. Brig.); June 1st. R. H. Shepherd (Sec. Lieut., Suff. R.); June 2nd. E. H. Canning (Temp. Sec. Lieut., Glouc. R.), W. O'Reilly-Patey (Sec. Lieut., Lond. R., T.F.); June 3rd. T. H. Barry (Sec. Lieut., R.G.A.); June 4th. C. H. F. Nesbit (Temp. Lieut., E. Kent R.), and to be Hon. Lieut.; June 5th. W. S. Melvin (Temp. Sec. Lieut., attd. Rif. Brig.), C. P. Shilton (Sec. Lieut., Leic. R.), C. A. Horn (Temp. Lieut., Gen. List, New Armies), and to be Hon. Lieut.; June 6th.

The following cadets are granted temp. commns. as Sec. Lieuts. (A. and S.): D. S. Dunn, J. F. Meek, H. G. Murray; May 1st. M. I. Ashley, J. E. Berry, K. W. Biglow, J. F. Boone, J. Canglamil, R. S. Carey, E. H. Carlisle, F. W. Chambers, V. L. Child, E. W. Cockerline, G. T. Collinson, J. T. K. Crossfield, P. R. Davies, W. K. Donville, J. R. Desy, C. W. Duncan, L. S. Eckart, K. M. Guthrie, S. L. Haley, F. S. E. Hall, A. J. Hiff, S. R. Housen, A. W. Johnston, A. J. Keif, V. M. Kidd, M. P. LaFleur, D. A. MacDonald, J. A. V. McRobert, F. S. J. Miller, M. J. Moffat, G. B. Moxon, W. Muirhead, J. G. Osborne, L. W. Ouellette, E. H. Pepper, W. S. Pennington, E. F. Pineau, S. J. Reid, H. C. Rochester, A. B. Rosevear, S. R. Seaman, D. McG. Spencer, H. J. Sinclair, A. L. Spracklin, R. E. Standfield, R. Stowell, G. V. Straker, R. K. Tarr, H. Thomas, J. A. Tomson, R. J. Tomson, W. L. Vennell, H. Vigne, R. V. Weston, A. H. Williams, F. R. Winter, R. D. B. Wood, W. H. Young, W. Evans, R. W. Hopper, A. G. Ridout, S. E. Henry, J. L. Spencer; May 2nd. H. Kennedy; May 4th. J. B. Abraham, W. V. Adams, K. W. Akers, G. G. Armstrong, G. D. Beaudry, J. C. B. Brady, N. T. Brown, O. D. Bell, J. B. Begin, W. G. Black, E. Brady, G. Brown, K. C. Brown, F. D. Clarke, C. E. Durant, D. K. Donnelly, E. A. Dunn, G. C. Garner, H. McK. Gordon, R. H. Gowan, W. S. Horne, S. Hamilton, L. Kane, W. R. Kellough, G. R. Klineck, P. L. De la Plane, L. K. Lloyd, A. R. Lee, E. B. Mathews, J. W. Macarthur, S. B. McNew, C. E. Mitchell, W. K. Misenhimer, C. J. Mitchell, A. D. Macpherson, G. E. Mullin, J. L. Miller, N. A. McIntosh, J. V. Norwood, W. H. Ptolemy, H. W. Pope, M. N. Pegg, G. A. Raybone, W. C. Ryder, A. L. Robinson, R. F. Russell, L. C. Roberts, J. W. Reid, E. W. Reis, E. G. Shafer, F. T. Sargent, K. M. Skene, G. W. Stewart, T. A. Sephton, W. R. Spittal, H. E. Sullivan, E. K. Sargent, S. S. Scott, J. G. Spence, W. P. Wemple, O. C. S. Wallace; May 9th.

The following cadets are granted temp. commns. as Sec. Lieuts. (Obs. Officers): W. F. Grainger; May 4th. W. G. Gardner, C. F. Berry, A. B. Anderson, H. S. S. McGill, J. C. Walker, C. Crowther, W. R. S. Fox, R. C. Capel-Cure, J. G. MacDougall, R. Bardsley, C. Walton, C. H. Bullen; May 18th. H. H. Fitzsimmons, F. S. Occomore, W. D. Houston, P. Evans; May 25th. H. P. Hodges, T. V. Robinson, C. O. Shellsell, L. W. King, E. I. Riley, G. S. Turner, H. S. Musgrove, L. R. Reeves, C. E. Spinks; May 31st. G. M. Worthington, J. S. Cryan, C. V. R. Browne, G. J. L. Potts, A. J. Cunningham, W. H. Warner, M. G. Wilson, F. K. Wilson, F. H. Bugge, G. J. Lewin, C. Peacock, C. J. Swatridge, S. A. Bird, W. Cowden, H. H. Creighton, W. L. E. Dickson, T. G. Evans, H. Griffiths, A. F. Honeysett, W. Holmes, R. I. Hulley, R. E. Hagley, J. W. Hamilton, J. W. Johnson, F. G. C. Maggs, W. A. Mercer, J. F. Mason, N. H. Manners, A. B. Meller, J. Kelley; June 8th. M. I. Hough, H. Baldwin, F. F. Crump; June 11th. C. Whitehead, J. Sheach; June 15th.

Lieut. M. T. Trotter (Lieut., Quebec R., C.E.F.) relinquishes his commn. on account of ill-health contracted on active service; June 19th.

Administrative Branch.

V. Henry, C.B. (Maj., Res. of Off., Lieut.-Col. ret., S.R.), is granted a temp. commn. as Lieut.-Col.; May 6th.

To be Temp. Capt. while employed as Capt.:—Lieut. F. J. Cooke (from Tech. Lieut.), Sec. Lieut. (Hon. Capt.) F. O. Sonderbye, Sec. Lieut. D. R. Thomas (from Sec. Lieut., Tech.), Lieut. (Hon. Capt.) R. F. Wills; April 22nd. Lieut. W. H. Osman; April 26th. Sec. Lieut. A. C. Rowden; May 11th. Lieut. L. E. Anstey-Bennett; June 1st. J. Ramsay, M.C. (Qrmr., and Hon. Lieut. in Army), is granted a temp. commn. as Lieut., and to be Temp. Capt.; April 22nd. Lieut. (Temp. Capt.) W. W. Gibson to retain his temp. rank, but with pay and allowances of Lieut.; April 22nd. Lieut. P. H. Ross; June 10th.

Sec. Lieuts. to be Temp. Lieuts. while employed as Lieuts.:—E. F. P. Bartlett, M.C.; April 1st. S. G. Lewis; April 23rd.

Lieut. (Hon. Capt.) C. A. Lord Ossulton to be Lieut. (Hon. Capt.), from A. and S.; June 5th.

J. R. Croxford (Hon. Capt.) in Army in granted a temp. commn. as Lieut., and to be Hon. Capt.; April 12th. (Substituted for notification in Gazette, June 4th.)

Temp. Sec. Lieuts. (late Gen. List, R.F.C., on prob.) are confirmed in their rank as Temp. Sec. Lieuts.:—R. J. H. F. Beresford; April 22nd; J. C. Duncan, P. Gent, H. S. Reddick, E. Smith, C. R. Southey, F. E. Miles, G. W. C. Dawson, J. P. Young; June 3rd.

Temp. 2nd Lieuts. (late Gen. List, R.F.C., on prob.) are confirmed in their rank as Temp. Sec. Lieuts.:—C. O. Bennett, H. S. Fielding; May 27th.

Temp. Lieut. G. Dodds, from A. and S., to be Temp. Sec. Lieut., and to be Hon. Lieut.; May 27th.

A. E. Hale (Temp. Sec. Lieut., Labour Corps) is granted a Temp. commn. as Sec. Lieut.; May 27th.

The following are granted temp. commns. as Sec. Lieuts., and to be Hon. Lieuts.:—S. F. R. Hulbert (Temp. Sub-Lieut., R.N.V.R., R.N.D.), H. L. Webley (Temp. Sub-Lieut., R.N.V.R., R.N.D.); April 16th. J. H. Bryen (Temp. Lieut., M.G.C.), and to be Hon. Lieut.; June 3rd.

Sec. Lieuts. relinquish their commns. on account of ill-health contracted on active service, and are granted the hon. rank of Sec. Lieut.;—S. A. Alcock, L. Lomax; June 19th.

Sec. Lieuts. resign their commns.:—J. S. D. Angus, V. R. W. Nash; June 19th.

Sec. Lieut. A. Wallas relinquishes his commn. on account of ill-health caused by wounds, and is granted the hon. rank of Sec. Lieut.; June 19th.

Sec. Lieut. T. A. Darrington to relinquish his commn. on account of ill-health, and to be granted the hon. rank of Sec. Lieut.; June 19th.

Technical Branch.

To be Temp. Maj. whilst employed as Maj.:—Lieut. (Temp. Capt.) S. McClure; April 14th. Capt. L. E. Palmer; May 27th. Lieut. (Temp. Capt.) E. F. B. Curtiss; May 29th. Capt. (Hon. Maj.) J. Liddle; June 6th. Capt. (Temp. Maj.) J. W. Burt retains his temp. rank whilst so employed; June 8th.

Lieuts. to be Temp. Capt. whilst employed as Capt.:—Hon. Capt. F. D. M. Bremner (from A. and S.); May 17th. W. H. Ellison; June 10th.

Sec. Lieut. V. L. Fielder to be Temp. Lieut. whilst employed as Lieut.; May 29th.

The following are granted temp. commns. as Sec. Lieuts.:—F. L. Robinson (Lieut., R.H.A., T.F.), and to be Hon. Lieut.; April 8th. J. J. Martin (Temp. Lieut., Gen. List, New Armies), and to be Hon. Lieut.; May 25th.

Temp. Sec. Lieuts. (late Gen. List, R.F.C., on prob.) are confirmed in their rank as Temp. Sec. Lieuts.:—P. S. Beaufort; April 13th. C. G. Massy-Dawson; May 17th. M. E. Holroyd; May 27th.

The initials of Sec. Lieut. (Hon. Capt.) W. H. P. Rees are as now described, and not as in Gazette of May 24th.

Memoranda.

Capt. V. Ward-Brown, M.C., to be Temp. Maj. whilst employed as S.O. 2; April 1st.
Sec. Lieut. P. W. Abernethy relinquishes his commn. on ceasing to be employed; April 16th.

London Gazette, June 21st.

The following temporary appointments are made at the Air Ministry:—
Staff Officer, 2nd Class (S.).—Lieut. (Temp. Capt.) D. C. James, and to be Temp. Maj. while so employed, vice Capt. (Temp. Maj.) G. S. Peacock; June 6th.

Staff Officers, 3rd Class.—And to be Temp. Capts. if not already holding that rank (S.).—Sec. Lieut. (Temp. Capt.) A. W. Rippon; April 1st. Sec. Lieut. D. L. C. Evans, vice Lieut. (Temp. Capt.) F. A. Barton; April 24th. Sec. Lieut. R. H. Smyth, vice Lieut. (Temp. Capt.) D. C. James; June 5th.

The following temporary appointments are made:—
Staff Officers, 1st Class (Air).—Maj. (Temp. Lieut.-Col.) P. C. Maltby, D.S.O., and to retain his temp. rank while so employed; May 1st. Maj. R. Hilton-Jones, and to be Temp. Lieut.-Col. while so employed; June 3rd.

Staff Officers, 2nd Class.—Lieut. (Temp. Capt.) C. Death, and to be Temp. Maj. while so employed; April 1st.

Staff Officers, 3rd Class.—And to be Temp. Capts. while so employed if not already holding that rank (Q.).—Sec. Lieut. (Hon. Lieut.) E. Ververs; May 13th. (P.).—J. Robertson (Temp. Capt., Gen. List), and is granted a temp. commn. as Capt.; June 3rd. Lieut. H. Lawson; June 8th. (Air).—Capt. D. L. Cox; June 5th.

Flying Branch.

The following Lieuts. (Hon. Capts.) to be Temp. Capts. while employed as Capts. (A. and S.):—W. L. Anderson, D.S.C., C. H. Keith, C. R. Morrish, D.S.C., E. R. Murray; May 1st. H. C. Sootheran; June 3rd.

Lieuts. to be Temp. Capts. while employed as Capts. (A. and S.):—V. F. Jaynes; June 12th. C. F. Horsley, M.C.; June 13th. J. Gray, R. J. Rodwell; June 15th.

Sec. Lieut. (Hon. Maj.) F. W. K. Davies to be Temp. Capt. while employed as Capt. (A. and S.); May 17th.

The following Temp. Lieuts., Obs. Officers, to be Temp. Lieuts. (A. and S.):—J. B. Pierce; April 27th. W. K. McMillan; May 6th. R. F. Hill, M.C.; May 14th. A. R. Gibson, C. H. Jordan; May 15th. J. E. L. Skelton; May 16th. W. S. Cowper-Coles; May 18th.

Temp. Lieut. (Hon. Maj.) J. A. C. Wright, from Obs. Officer, to be Temp. Lieut., and to be Hon. Maj.; May 17th.

Temp. 2nd Lieut. H. W. Arnott (Tech.) to be Temp. Sec. Lieut. (A. and S.); May 17th.

The following Sec. Lieuts. (late S.R., R.F.C., on prob.) are confirmed in their rank as Temp. Sec. Lieuts. (A. and S.):—R. Russell; May 10th. W. J. Barber; May 19th. T. D. H. Alderton; May 20th.

The following Temp. Sec. Lieuts. (late Gen. List R.F.C., on prob.) are confirmed in their rank as Temp. Sec. Lieuts. (A. and S.):—E. Mulcair; April 1st. J. K. Stewart, J. R. Quinn; April 2nd. P. S. Manley; April 4th. L. J. Weatherall; April 5th. W. Campbell; April 7th. F. J. Russell, C. E. Gregory, A. H. Freed; April 8th. E. G. Jones; April 13th. L. W. Savidge, H. N. Thornton, A. B. MacPherson; April 26th. S. Lovett; April 28th. J. F. C. Oliver; April 30th. G. L. Winterbottom, S. B. Wright; May 4th. A. T. Dunlop, C. W. Frasier; May 6th. J. R. Brown, C. Brooks, E. C. Clarke, H. J. C. Seymour; May 8th. J. B. G. Bradley, A. Lewis, M. Tallentire, D. Oxley, C. A. Crichton; May 10th. F. C. Wiltshaw, H. F. V. Battle, R. S. McKenna, A. A. S. Milne, H. L. McLellan, P. Phillips; May 10th. H. G. Marsay, R. J. T. Wray; May 11th. A. L. Pearce, T. C. Clarkson, E. Peacock, C. O. Frost, L. S. Morck, H. H. Palmer, J. Farquhar; May 12th. L. C. Holliday, H. Rae, G. E. Scott, H. R. Abey, H. W. Smith; May 13th. H. Wheat, J. Owen, J. C. G. Drummond, H. Townley, G. V. Kitson, G. Read, C. S. Gregg, J. K. Hill, S. Rendle, W. T. Leonard, R. E. Wimbush, F. H. H. Biddle, A. S. Colley, W. W. Gyles, S. G. T. Spear, W. A. Warwick, E. A. C. Britton; May 14th. F. Findlay, J. A. Watt, D. W. Pugh, W. H. Bland, W. H. Gibson, J. A. Mitchell, A. N. Abbott, L. Thompson, S. S. Snelling, J. Wallace, J. S. Haigh, E. G. Reynolds, H. Howarth, P. V. Frederichsen, J. S. Swales, G. W. T. Latimer, E. O. Champagne, S. E. Alexander, C. A. J. Goodfellow, W. F. Jaggs, N. Davies, F. J. Shearer, T. Peacock, H. E. King, S. S. George, J. G. Kershaw, R. Hawkins; May 15th. T. Warburton, H. F. Redmond, H. Dodd, J. H. Gidman, J. J. Mordecai, W. O. Goldthorpe, A. O. Farmer, J. Rathbone, E. M. Sutton, H. Walker, L. T. Bird, V. C. Roxmouth, J. G. Webster, D. Mumford, W. G. F. Grant, H. G. R. Boyt, A. Russell, W. N. Wilson, W. J. Kelsey, J. C. Ivens, J. H. Stringfellow, J. B. Lacy, L. V. Evans, T. R. Adair, H. Butterworth, H. West, W. S. Darley, F. Wallis, C. B. S. Gilliat, A. N. Jones, O. V. Juddins, W. H. Maxted, R. Nivon, L. C. Andrews; May 16th. R. P. Waller, J. M. Walker, L. C. Scroggie, P. J. A. Fleming, P. L. Lowenoff, R. U. Fuller, W. Campbell, A. A. Boothe, R. J. Davey, O. Price, G. W. Taylor, T. L. Bourke, G. E. C. Wisdom, H. Northrop, R. J. Morgan, G. T. Olmstead, J. W. Page, C. C. Bevington, M. F. Poulter, J. H. W. Wilcox, E. S. Morrison, D. McGibbon, J. C. Lawrence, J. Pugh-Jones, F. Fraser, F. Allsop, W. A. Hall, W. S. Weeks, E. R. Wallington; May 17th. W. H. E. Graham, A. Roots, J. W. Pickering, H. W. Goldsack, C. B. Sanderson, G. A. Walker, F. R. Greenwood, G. H. Waddup, J. P. Ferreira, E. C. Crossley, T. C. Stuart, G. W. Gant, G. Randall, E. Cotton; May 18th. H. E. B. Holden, T. L. Lysaght, P. G. Troughton, G. E. Shipp, L. H. Parsons, R. J. Loughieen; May 19th. H. B. Hewat, D. V. McLeod, J. A. Massey, H. A. Townsley, D. M. Fleming, N. Cook, W. W. McGill, W. Kellow, B. J. McCutcheon; May 20th. G. A. Munro, R. L. Cane; May 21st.

The following are granted temp. commns. as Sec. Lieuts. (A. and S.):—S. W. Cubitt (Lieut., W. York R., T.F.), and to be Hon. Lieut.; April 24th. E. G. Rumbutt (Temp. Lieut., attd. Shrops. L.I.), and to be Hon. Lieut.; May 8th. D. McD. Northcombe (Lieut., W. Ont. R., C.E.F.), and to be Hon. Lieut., B. A. Ross (Sec. Lieut., R. Berks R., T.F.); May 10th. E. Martyr (Sec. Lieut., R. Fus., S.R.); May 11th. C. C. Gover (Temp. Capt., R.E.), and to be Hon. Capt.; May 12th. A. Le Blanc (Temp. Lieut., Gen. List), and to be Hon. Lieut.; May 14th. H. C. Clemans (Temp. Sec. Lieut., Hamps. R.), W. J. Bourne (Temp. Lieut., Northd. Fus.), and to be Hon. Lieut., G. D. Brewster, M.C. (Temp. Capt., Bedf. R.), and to be Hon. Capt., A. P. Thompson (Temp. Capt., A.S.C.), and to be Hon. Capt., C. A. Grant (Temp. Sec. Lieut., E. Kent R.), P. W. W. Armistead (Capt., Lond. R., T.F.), and to be Hon. Capt.; May 15th. D. A. Gordon (Lieut., Br. Columbia R., C.E.F.), and to be Hon. Lieut., J. Glen (Lieut., Sec. Rif., T.F.), and to be Hon. Lieut., S. Knight (Lieut., Can. Rly. Service, C.E.F.), and to be Hon. Lieut., F. R. Keen (Temp. Sec. Lieut., attd. Middx. R.), F. J. S. Murray (Maj., Br. Columbia R., C.E.F.), and to be Hon. Maj., E. M. Bates (Lieut., A.S.C.), and to be Hon. Lieut., S. L. Cannon (Temp. Sec. Lieut., Shrops. L.I.), A. W. Parr (Temp. Sec. Lieut., attd. Middx. R.); May 16th. F. C. D. Scott (Lieut., Durh. L.I., T.F.), and to be Hon. Lieut., C. J. Paterson (Lieut., Inns of Court O.T.C., T.F.), and to be Hon. Lieut., C. G. Pegg (Sec. Lieut., Middx. R., T.F.), F. W. Frawford, M.M. (Lieut., E. Ont. R., C.E.F.), and to be Hon. Lieut.; May 17th. F. S. Fisher (Sec. Lieut., R.G.A., S.R.), R. L. Bateman (Lieut., R. Fus., S.R.), and to be Hon. Lieut., A. W. Sharp, (Sec. Lieut., B. edf. R., T.F.), F. S. Williams (Lieut., Mon. R., T.F.), and to be Hon. Lieut., E. R. Zealley (Temp. Lieut., R. Lanc. R.), and to be Hon. Lieut.; May 18th. M. H. Bird (Lieut., Cent. Ont. R., C.E.F.), and to be Hon. Lieut., K. F. Caird (Temp. Lieut., Trg. Res. Bn.), and to be Hon. Lieut., J. Jones (Lieut., Northn. R., T.F.), and to be Hon. Lieut.; May 19th. D. F. Brooks (Temp. Sec. Lieut., attd. Middx. R.), H. L. Arnott (Lieut., W. Rid. R., T.F.), and to be Hon. Lieut., A. E. Haynes, M.C. (Lieut., R.H.A.), and to be Hon.

Lieut.; May 20th. F. S. E. May (2nd Lieut., R.W. Surr. R., T.F.); May 21st. J. T. I. Brownlee (late Lieut., S.A. Inf.), and to be Hon. Lieut.; June 13th.

The following are granted temp. commns. as Sec. Lieuts. (Obs. Officers):—D. R. MacDonald (Temp. Capt., A.S.C.), and to be Hon. Capt.; June 1st. J. E. Saunders (Lieut., Lan. Fus., T.F.), and to be Hon. Lieut., F. M. Loly (Lieut., E. Surr. R., S.R.), and to be Hon. Lieut., R. McK. Jamison (Temp. Sec. Lieut., R. Ir. Rif.); June 7th. J. J. Fenwick (Temp. 2nd Lieut., attd. R. Scots), T. A. Cousins (Sec. Lieut., R.F.A., S.R.), C. E. Willows (Lieut., Lond. R., T.F.), and to be Hon. Lieut., H. Hutchinson (Sec. Lieut., R.F.A. S.R.), J. W. Lissett (Temp. Lieut., E. York R.), and to be Hon. Lieut., D. G. Porter (Sec. Lieut., R.F.A., T.F.), A. P. Quaife (Lieut., Dorset R. S.R.), and to be Hon. Lieut., M. A. Waterer (Sec. Lieut., R.E., S.R.), C. Wilkinson, M.C. (Temp. Lieut., R.F.A.), and to be Hon. Lieut.; June 8th. F. G. Wall (Temp. 2nd Lieut., Res. R. of Cav.); June 9th. E. Dunville (Sec. Lieut., W. Rid. R., T.F.); June 10th. J. H. Odell (Lieut., C.F.A., C.E.F.), and to be Hon. Lieut., F. Butterworth (Temp. 2nd Lieut., W. York R.), J. McAslan (Sec. Lieut., High. L.I., T.F.), L. G. Hills (Temp. Sec. Lieut., R. Fus.), G. L. Pargeter (Temp. Sec. Lieut., R. Fus.), R. A. B. Pope, M.C. (Temp. Lieut., M.G.C.), and to be Hon. Lieut., H. E. Chapman (Sec. Lieut., R. Highrs., T.F.), C. A. Stubings (Temp. Sec. Lieut., Norf. R.), G. I. Carr (Lieut., Alberta R., C.E.F.), and to be Hon. Lieut., K. McDonald (Lieut., Northd. Fus., T.F.), and to be Hon. Lieut., A. C. Pollard, M.C. (Lieut., Br. Columbia R., C.E.F.), and to be Hon. Lieut., A. E. Garrison, M.C. (Temp. Sec. Lieut., York and Lan. R.), R. C. Clarke (Temp. Sec. Lieut., R. Fus.), H. E. Falkner (Temp. Lieut., Suff. R.), and to be Hon. Lieut., F. N. Pickford (Temp. Sec. Lieut., Lan. Fus.), G. Walker (Temp. Lieut., Yorks. L.I.), and to be Hon. Lieut., H. S. Smith (Sec. Lieut., Lond. R., T.F.); June 15th.

The following Temp. Sec. Lieuts. (late Gen. List, R.F.C., on prob.) are confirmed in their rank as Temp. Sec. Lieuts., Obs. Officers:—H. C. Charnley, A. E. Harris, H. Knowles, C. E. Gardener; June 7th. W. H. Smith, W. Brennan, A. Shives, T. James, I. B. Hyslop, A. J. Bridge; June 8th.

The following prob. Obs. Officers (late R.N.A.S.) are granted temp. commns. as 2nd Lieuts., Obs. Officers:—W. H. L. Halford, A. G. V. Reeves, G. C. Bull; May 31st.

The following cadets are granted temp. commns. as Sec. Lieuts., Obs. Officers: F. W. Dey, H. Mottershaw; May 4th. W. A. Cowie, E. V. Austin, J. Amos, G. A. Duthie, J. L. Tait; June 8th.

The following Temp. Sec. Lieuts. (late Gen. List, R.F.C., on prob.) are confirmed in their rank as Temp. Sec. Lieuts. (K.B.):—E. P. Caton, K. E. Judd; April 1st.

Temp. Lieut. H. E. Freeman-Smith, from Obs. Officer, to be Temp. Lieut. (K.B.); April 15th.

The following are granted temp. commns. as Sec. Lieuts. (K.B.):—H. Smart (Temp. Lieut., attd. Bedf. R.), and to be Hon. Lieut.; April 1st. P. C. Foster (Sec. Lieut., R.F.A., T.F.); April 15th. V. R. W. Owens (Temp. Sec. Lieut., Middx. R.); June 1st. C. N. Poynton, M.C. (Sec. Lieut., R.G.A.); C. J. P. Copner (Capt., S. Wales Bord.), and to be Hon. Capt.; Temp. Sec. Lieut. J. E. Cave (late Gen. List, R.F.C., on prob.) is confirmed in his rank as Temp. Sec. Lieut., Obs. Officer; June 10th.

Lieut. L. D. Harthorn resigns his commn., and is granted the hon. rank of Lieut.; June 22nd.

Lieut. H. D. Luxton relinquishes his commn. on account of ill-health caused by wounds, and is granted the hon. rank of Lieut.; June 22nd.

The notification in *Gazette* May 31st, regarding Lieut. (Temp. Capt.) G. M. Thomas is cancelled.

The initials of Sec. Lieut. (Hon. Lieut.) J. H. Shaw are as now described, and not as in *Gazette* May 21st.

Administrative Branch.

A. A. E. Robinson is granted a temp. commn. as Maj.; April 1st. (Substituted for notification in *Gazette* May 21st.)

W. E. E. Stone (Lieut., Temp. Capt., Gen. List) is granted a temp. commn. as Lieut., and to be Temp. Capt., while specially employed; April 1st.

The following are granted temp. commns. as Lieut.:—Sergt.-Maj. G. T. Stroud; April 1st. G. H. Lyall; April 16th.

J. R. Deronet (Temp. Sec. Lieut., Worc. R.) is granted a temp. commn. as Sec. Lieut., and to be Temp. Lieut.; April 2nd.

Lieut. J. Duncan to be Lieut. (from A. and S.); June 6th.

Temp. Sec. Lieut. F. P. Miller (late Gen. List, R.F.C., on prob.) is confirmed in his rank as Temp. Sec. Lieut.; June 7th.

G. T. Simonds (late Lieut., R. Berks R.) is granted a temp. commn. as Sec. Lieut., and to be Hon. Lieut.; June 10th.

The following are granted temp. commns. as Sec. Lieuts.:—H. J. Lee; May 20th. T. C. Balfour, S. Bingham, L. L. Bridgman, J. W. Brittain, F. Calnan, T. W. Crawford, T. R. Daisley, C. R. English, A. E. C. Halliday, J. Harding, B. M. Hickman, H. C. Hook, W. Johnstone, G. T. Kitto, H. Sidebottom, R. G. Sims, H. V. Stanier, J. A. Tindall, D. A. Willmott, G. H. Winckworth, J. Whittridge, S. Wootton, B. W. Wright; June 5th. R. A. Ford; June 10th. R. J. Adam, J. K. Douglas, L. Evans, J. Winslow; June 15th. S. Aspinall, E. P. Beard, W. H. Henstridge, J. S. Hilton, N. D. Lees, T. Surr; June 17th.

The following Lieuts. (Temp. Capt.) relinquish their commns., and are granted the hon. rank of Capt.:—C. E. Heathcote, F. H. Spragg, P. Westacott; June 22nd.

Lieut. (Temp. Capt.) F. A. Stacpole (Lieut., E. Yorks R., S.R.) relinquishes his commn. on account of ill-health caused by wounds; June 22nd.

The following Sec. Lieuts. resign their commns.:—W. C. Whitthorne, K. J. Woodgate; June 22nd.

Technical Branch.

The following are granted temp. commns. as Lieuts.:—C. F. S. Gamble (Temp. Sub-Lieut., R.N.V.R.); June 11th. G. F. F. Eager, M.C. (Temp. Lieut., R.E.); June 22nd.

Lieut. H. M. Whitehead to be Lieut. (from A. and S.); May 13th.

Lieut. (Temp. Capt.) J. H. Gaudion relinquishes the temp. rank of Capt.; May 31st.

Sec. Lieut. (Hon. Lieut.) S. H. Hewett to be Temp. Lieut. while employed as Lieut.; June 14th.

Sec. Lieut. F. S. Hetherington (late Gen. List R.F.C., on prob.) is confirmed in his rank as Temp. Sec. Lieut.; May 13th.

N. Whitley (Lieut., Som. L.I., T.F.) is granted a temp. commn. as Sec. Lieut., and to be Hon. Lieut.; June 8th.

Sec. Lieut. S. G. Ball, from Admin., to be Temp. Lieut.; June 10th.

Lieut. J. W. Bradford (K.B.) to be Temp. Sec. Lieut., and to be Hon. Lieut.; June 11th.

Medical Branch.

The following are granted temp. commns. as Capts.:—W. Enraght; June 11th. A. L. H. Rackham; June 18th.

The following are granted temp. commns. as Lieuts.:—U. Lambrinudi; June 14th. H. MacP. Cargin, L. Patchett, N. F. Stallard; June 15th. A. Kirkhope, G. A. S. Madgwick, N. H. Medhurst, J. Stark; June 17th. P. M. Carroll; June 18th. P. Ashton; June 19th.

Memoranda.

Maj. (Temp. Lieut.-Col.) R. H. Collier, D.S.O., to be Temp. Col. while specially employed; June 3rd.

Lieut. W. H. Holroyd to be Temp. Capt. while specially employed; Apr 1st.

The following relinquish their comms. on ceasing to be employed:—Lieut. P. B. Whi Her; April 2nd. Sec. Lieut. J. R. McGregor; April 26th. Lieut. C. E. Lugard (Lieut., E. Surr. R.); May 27th. Lieut. E. V. MacLeau (Lieut., R.F.A., T.F.); May 30th. Lieut. (Temp. Capt.) A. M. W. Wells (Lieut., R.N.V.R.); June 7th. Lieut. (Temp. Capt.) W. Murray (Capt., Sea. Highrs.); Lieut. (Hon. Capt.) H. Gartside-Tippinge (Lieut., R.N.); June 15th. Lieut. M. B. Hughes (Asst. Payr., R.N.V.R.); June 17th.

Royal Flying Corps (Military Wing).

London Gazette Supplement, June 15th.

Equipment Officer, 2nd Class.—The appointment of Temp. Lieut. H. J. Murphy, Gen. List, notified in *Gazette* March 15th, is antedated to Nov. 5th, 1917.

Equipment Officer, 3rd Class.—Lieut. (Temp. Capt.) E. H. Colman, S.R., from a Flight Comdr., and to relinquish his temp. rank; Feb. 1st.

General List.—The following from R.F.C., to be Temp. 2nd Lieuts.:—3rd Class Air Mech. W. R. K. Atkinson; Feb. 23rd. 2nd Class Air Mech. R. H. Blackmore; March 1st. 2nd Class Air Mech. F. J. Brunton; March 8th.

Motor Cyclist Cpl. H. W. How, from R.E., T.F., to be Temp. 2nd Lieut.; Feb. 28th.

London Gazette Supplement, June 18th.

Flying Officers.—Lieut. T. D. Campbell, Canadian Local Forces, vacates his appointment (Feb. 8th); the appointment of Temp. Sec. Lieut. A. Buchanan, notified in *Gazette* May 10th, is antedated to March 4th.

The following appointments are made:—

Equipment Officers, 3rd Class.—Temp. Sec. Lieuts. (on prob.), Gen. List, and to be confirmed in their rank:—G. W. Stephenson; Jan. 12th. W. Pightling; Feb. 12th.

General List.—Cpl. H. Rowlands, from Yeo. (T.F.), to be Temp. Sec. Lieut.; March 1st.

London Gazette Supplement, June 19th.

Equipment Officers, 1st Class.—Lieut. (Temp. Capt.) W. H. Dolphin, Ind. Army Res. of Off., from an Examining Officer (graded as a Flight-Com.), Schools of Mil. Aeronautics, and to retain his temp. rank while so employed; Jan. 26th.

3rd Class.—Temp. Sec. Lieut. R. C. Sugars, Lab. Corps, and to be transfd. to R.F.C. Gen. List; Jan. 10th. Temp. Sec. Lieut. (on prob.) A. G. C. Potts, Gen. List, and to be confirmed in his rank; March 23rd.

General List.—Cpl. C. G. de Montalt, from R.F.C., to be Temp. Sec. Lieut.; Oct. 24th, 1917.

London Gazette Supplement, June 20th.

The following appointments are made:—

Flight Commanders.—From Flying Officers, and to be Temp. Cpts. whilst so employed:—Lieut. R. S. Larkin, M.C., S.R.; Jan. 22nd. Temp. Sec. Lieut. W. M. Blackie, M.C., Gen. List; Feb. 25th.

Flying Officers.—Lieut. J. F. B. Davies, Canadian M.G. Corps; March 14th. Temp. Sec. Lieut. P. N. Hoyle, Gen. List, from a Flying Officer (Obs.), seniority April 3rd, 1917. Temp. Sec. Lieut. C. Reardon, R.A., and to be transfd. to R.F.C. Gen. List; March 15th. Lieut. E. J. Mills, Quebec R., Canadian Exped. Force; March 16th. Lieut. T. R. Dixon, R.F.A., S.R., from a Flying Officer (Obs.), with seniority Sept. 24th, 1917. Temp. Lieut. A. S. Clark, Cam'n. Highrs., from a Flying Officer (Obs.), seniority May 6th, 1917, and to be transfd. to R.F.C. Gen. List; March 18th. Temp. Lieut. T. H. Lucas, Garr. Bn., Hamps. R., and to be transfd. to R.F.C. Gen. List; Lieut. L. M. Snelling, Lond. R. (T.F.), and to be sec'd.; Temp. Sec. Lieut. G. T. Cooke, Gen. List, from a Flying Officer (Obs.), seniority April 26th, 1917; March 19th. Temp. Lieut. G. S. Dee, R. Dub. Fus., and to be transfd. to R.F.C. Gen. List; March 21st. Temp. Lieut. J. Saulez, attd. Midd'x R., and to be transfd. to R.F.C. Gen. List; March 31st.

Temp. Sec. Lieuts. (on prob.), Gen. List, and to be confirmed in their rank:—R. C. Van Ryneveld; March 13th. J. C. Tusting, H. H. Wright, G. S. George; March 15th. G. F. C. Matthews; March 18th. J. D. Mail; March 19th. A. G. Thornhill, F. P. Sergrinson, B. C. Scott; March 20th. A. V. Bickley; March 21st. R. Lamb; March 31st.

The appointment of Temp. Sec. Lieut. C. A. Mitchell, Gen. List, notified in *Gazette* April 29th, is antedated to Feb. 20th.

Flying Officers (Observers).—Temp. Sec. Lieut. E. D. Warburton, Gen. List; April 4th, 1917, seniority March 9th, 1917. Temp. Sec. Lieut. P. W. King, Manch. R., and to be transfd. to R.F.C. Gen. List; Feb. 23rd, seniority Sept. 24th, 1917. Lieut. P. P. Butters, N. Lan. R. (T.F.), and to be sec'd.; Feb. 1st, seniority Oct. 26th, 1917. Temp. Lieut. P. H. Clarke, R.A., and to be transfd. to R.F.C. Gen. List; Feb. 18th, seniority Dec. 11th, 1917. The appointment of Sec. Lieut. P. H. Clarke, M.C., R.G.A., S.R., notified in the *Gazette* of March 20th, is cancelled.

London Gazette Supplement, June 21st.

The following appointments are made:—

Flying Officer (Observer).—Temp. Sec. Lieut. C. C. Cole, attd. Essex R., and to be transfd. to R.F.C. Gen. List; March 18th, seniority from Jan. 12th.

Equipment Officers, 3rd Class.—Temp. Lieut. J. W. Broughton, Garr. Bn., Yorks L.I., and to be transfd. to R.F.C. Gen. List; March 23rd. Temp. Sec. Lieut. H. Linfield, Garr. Bn., Yorks L.I., and to be transfd. to R.F.C. Gen. List; March 24th. Temp. Sec. Lieuts. (on prob.), Gen. List, and to be confirmed in their rank:—W. E. Barber; March 4th. E. G. Annes; March 7th.

General List.—Temp. Sec. Lieuts. to be Temp. Lieuts.:—H. J. Griffiths, P. L. Lindup, F. H. Waldron, T. J. West, M.C., A. J. Watson; (Temp. Lieut.) A. E. Kennedy, H. Hillier, L. W. Baker, W. Briggs, A. Caen, G. T. Cooke; July 1st, 1917. C. H. E. Ridpath; Aug. 26th, 1917. B. F. Wates; Nov. 6th, 1917. F. E. Glass; Dec. 11th, 1917. J. Fleming, R. Harrison, J. B. Pierce; Jan. 7th. C. S. Edwards; Jan. 8th. A. P. Adams; Jan. 9th. M. H. A. Fletcher; Jan. 15th. C. H. Wilkins; Jan. 19th. R. W. P. Goodwin, V. J. Hammond, E. Hillary, R. Temple, C. B. Spurgeon, J. W. Lee (since killed); Feb. 5th. G. M. Elhoart; Feb. 17th. J. L. Dearing; Feb. 26th. G. P. Colin; Feb. 28th. P. S. Woodroffe, S. A. Salmon, A. D. Napier, G. K. McArthur, A. F. Elliott, A. E. Franklin, A. B. Jones, A. W. Keight, L. E. Lomas; March 5th. R. G. G. Pinfield; March 9th. H. Dear; March 11th. S. H. Glendinning; March 15th. A. L. Johnson, J. G. Beckham; March 24th. W. T. Edwards, J. Handley, T. F. Isaac, P. Kent, C. W. Lewis, G. R. Waters, J. E. Sitch, D. P. Wilson, W. A. Clark, A. H. Craig; March 26th. A. W. Waddy, H. Brooks; March 27th. J. S. MacKenzie; March 30th.

To be Temp. Sec. Lieuts.:—Lee-Cpl. W. Smith, from Yeo., T.F.; Feb. 21st. Lee-Cpl. L. G. Farrant, from R.W. Fus.; March 10th. Gnr. C. S. Rathbone, from R.F.A. (T.F.); March 13th. Gnr. C. P. Primrose, from Motor Machine Gun Batt.; March 14th. Pte. E. V. Brown, from R.A.M.C. (T.F.); March 17th. 3rd Class Air Mech. S. A. Hinde, from R.F.C.; March 18th. Dvr. L. S. Dare, from R.A., Sgt. F. W. Morgan, from R.A.M.C. (T.F.); March 19th. Sgt. C. B. Hales, from R.H.A. (T.F.); March 23rd. Temp. Sec. Lieut. (on prob.), A. Hartley; March 26th.

London Gazette Supplement, June 22nd.

The following appointments are made:—

Flight Commander.—Temp. Sec. Lieut. J. E. Bonnicksen, Gen. List, from a Flying Officer, and to be Temp. Capt. whilst so employed; Feb. 26th.

Flying Officers.—Temp. Sec. Lieut. T. Louw, S. Afr. F.A.; March 30th. Temp. Sec. Lieuts. (on prob.), Gen. List, and to be confirmed in their rank:—H. A. Reid; Jan. 17th. R. C. Guest, J. L. Montgomery; March 26th.

Flying Officer (Observer).—Temp. Sec. Lieut. W. H. M. Watt, attd. Ches. R., and to be transfd. to R.F.C. Gen. List; July 31st, 1917, seniority June 27th, 1917.

Assistant Instructor in Gunnery.—Graded as an Equipment Officer, and Class.—Temp. Lieut. J. P. Barrett, Linc. R., from an Asst. Instr. in Gunnery (graded as an Equipment Officer, 3rd Class), and to be transfd. to R.F.C. Gen. List; March 31st.

Adjutant.—Capt. C. V. Mercer, E. Kent R., S.R.; March 29th.

Equipment Officers, 1st Class.—Temp. Lieut. A. E. Neale, Gen. List, from the 2nd Class, and to be Temp. Capt. whilst so employed; March 1st.

3rd Class.—Temp. and Lieut. (on prob.) C. H. J. Evershed, Gen. List, and to be confirmed in his rank; Dec. 31st, 1917.

General List.—To be Temp. Sec. Lieuts.:—Lee-Cpl. J. Harris, from Sea. Highrs.; March 2nd. Actg. Sergt.-Maj. S. Graves, from A.S.C.; March 3rd. Lee-Cpl. F. Barnes, from Yeo. (T.F.); March 13th. Gnr. L. C. Phillips, from R.H.A. (T.F.); March 18th. Gnr. S. G. Hollingsworth, from R.F.A. (T.F.), Dvr. J. W. Richards, from R.H.A. (T.F.); March 19th.

London Gazette Supplement, June 24th.

The following appointments are made:—

Balloon Officers.—Lt. W. H. Daish, Lond. R., T.F., and to be sec'd.; Temp. Lt. H. G. Yearsley, R.A., and to be transfd. to R.F.C. Gen. List (March 10th); Temp. Sec. Lt. (on prob.) S. A. Odell, Gen. List, and to be confirmed in his rank (March 23rd).

Equipment Officers, 2nd Cl.—From Flying Officers.—Temp. Lt. W. F. Fletcher, Gen. List; Lt. C. T. Wilson, R.I. Fus., Spec. Res. (March 1st). From Equipment Officers, 3rd Cl., and to be Temp. Lts. whilst so empld.:—Temp. Sec. Lt. N. G. Arnold, Gen. List (March 1st); Sec. Lt. E. W. Brooks, Spec. Res. (March 26th).

Aeronautical Inspection Department.

London Gazette Supplement, June 11th.

A. L. Johnson to be Temp. Hon. Lieut. while employed as Asst. Insp. Aeronautical Inspn. Dept; Sept. 1st, 1917.

AIRCRAFT WORK AT THE FRONT.

OFFICIAL INFORMATION.

British.

War Office, June 16th.

"Italian Front."—Three further enemy aeroplanes were destroyed in air fighting yesterday in addition to the seven previously reported. The clouds remain low, and distant reconnaissance is impossible. The energy of our Air Service has been mainly confined to attacks on the bridges and troops which the enemy are attempting to throw across the Piave. In these attempts they have not been very successful.

"Palestine."—On June 11th Amman railway station (on the Hedjaz railway, 25 miles east of the Jordan), together with the enemy's aerodrome and hostile troops and transport in its vicinity, were heavily bombed by our aeroplanes."

General Headquarters, June 16th.

"On the 15th inst. our airmen carried out reconnaissance work and co-operation with the artillery as usual, and took a number of photographs. Ten tons of bombs were dropped by us during the day, and 9 tons by night, the most important targets being the railway stations of Estaires and Armentières and Bruges Docks. In air fighting we brought down three German machines and one observation balloon, and drove down two other hostile aeroplanes out of control. None of our machines are missing."

General Headquarters, June 17th.

"Uncertain weather interfered with aerial operations on the 16th inst., but a good deal of observation for artillery fire was carried out by our aeroplanes and balloons. Numerous photographs were taken, and many useful reconnaissances were accomplished by our machines. Enemy aircraft were active at times on the northern portion of the British front and in the French battle zone. Eleven hostile machines were destroyed by us in air fighting and nine driven down out of control. One German balloon was brought down in flames. In addition, one hostile machine was shot down and another driven down out of control by our anti-aircraft fire. We lost 10 machines during the day, six of which were working south of Montdidier. We dropped 22 tons of bombs by day and 12 tons during the following night, heavily attacking the railways at Armentières, Estaires, Comines, and Courtrai, and the docks at Bruges. Two of our night-flying machines failed to return."

War Office, June 17th.

"Italian Front."—On the 15th and 16th the Royal Air Force dropped over

300 bombs and fired over 25,000 rounds of machine-gun ammunition at troops and transport attempting to cross the Piave."

Admiralty, June 18th.

"During the period June 13th-16th inclusive weather conditions have somewhat hindered operations by Naval Air Force contingents. Bombing raids were, however, carried out on the following objectives:—Zeebrugge, Ostend, docks, Bruges docks, Thourout railway junction and aerodrome, Ghistelles aerodrome, Le Brugeoise works, and Aertrycke. Good results were obtained, and hits were observed on the Bassin de Chasse, railway station, docks, Bassin Leopold, Frederick Battery and lock gates, and a fire was started at junction of Canal and Bassin Leopold at Ostend. Bursts were also observed on the Mole at Zeebrugge and near the lock gates. At Bruges docks bursts were observed north-east of quay and alongside West Bassin, on Northern Darse, eastern side of dock, on land between North and No. 3 Darses, on the North Quay, and south end of East Bassin. The railway station at Thourout was also hit. In all, nearly 24 tons of bombs were dropped, and all machines returned safely except one, which was hit by anti-aircraft fire over Bruges and forced to land, the machine being subsequently destroyed by enemy artillery. Bombs were also dropped on an enemy vessel. In addition to the above the usual patrols were carried out. Enemy machines were sighted and attacked, but no decisive combats are reported. In home waters, during the same period—unsuitable weather notwithstanding—anti-submarine, escort, and hostile aircraft patrols have been maintained by seaplanes, aeroplanes, and airships. Hostile submarines have been sighted and attacked, enemy mines have been located and destroyed, and Allied and neutral shipping has been convoyed."

General Headquarters, June 18th.

"On June 17th the enemy's machines were active on the northern portion of the British front, and there were many combats in the air, in the course of which we destroyed 25 German aeroplanes and drove three more down out of control. One hostile balloon was shot down in flames. The usual observation and photographic work was carried on by our aircraft until stopped by thunderstorms in the afternoon. Twenty tons of bombs were dropped during the day on the enemy's railway stations, junctions, dumps, and aerodromes, and a further 9 tons during the following night. Five of our aeroplanes are missing."

General Headquarters, June 19th.
 "The weather on June 18th was cloudy, but this did not prevent our aeroplanes from carrying out their work of observing for our guns. In air fighting we destroyed 15 German machines and drove down five out of control. Eight of our aeroplanes are missing. Nineteen tons of bombs were dropped by us during the day. Heavy rain rendered work at night impossible."

War Office, June 19th.
 "Italian Front.—The Royal Air Force, who were unable to operate on the plateau during practically the whole of the battle owing to mist, delayed the advance of the enemy across the Piave with their usual gallantry."
 "The number of enemy aeroplanes destroyed on the 15th inst. was eight, and not ten, as previously reported."

Admiralty, June 20th.
 "A British squadron while on reconnaissance in the north of the Heligoland Bight on the morning of June 19th was attacked by German seaplanes.
 "No hits were made by the enemy, and one enemy seaplane was brought down and destroyed by gunfire."

General Headquarters, June 20th.
 "Low clouds and rain interfered with flying on June 19th, and enemy aircraft showed little activity. Nine German machines were destroyed during the day and two were driven down out of control. One of our machines is missing."

War Office, June 20th.
 "Palestine.—Imperial and Australian air squadrons executed an extensive bombing raid on El Kutrani railway station and the enemy camps in its vicinity on the morning of June 16th. Direct hits were observed on a troop train full of troops and on the enemy shelters. The station buildings were set on fire.
 "On June 18th a similar raid was carried out on Amman station."

General Headquarters, June 21st.
 "On the 20th inst. low clouds and rain greatly hampered flying operations. One enemy machine was brought down, and one of our machines is missing."

Admiralty, June 21st.
 "During the period June 17th-19th inclusive, to some extent weather conditions have again interfered with naval air operations."

"Night and day bombing raids were carried out on the following objectives: Bruges Docks, Ostend Docks, Zeebrugge, St. Denis Westrem and Maria Aelter Aerodromes, La Brugeoise works, Thourout railway junction, and railway sidings at St. Pierre Cappelle (east of Nieuport)."

"In all, approximately 16 tons of bombs were dropped with good results, bursts being observed on Brugeoise works and the south-west side of Southern Darse, Quai de Paquebots, and Flotilla Wharf, and on a ship 3 miles off Ostend Dock. At Bruges Docks bursts were also observed north of docks, west of West Bassin, on the submarine shelters and sheds at East Bassin. A hit was obtained at Zeebrugge between the lock gate and Mole, and at Ostend Docks bursts were observed on piers and warehouses, and on sheds and submarine shelters near Bassin de Chasse and Ateliers de la Marine."

"Attacks with bombs and small arms ammunition were made on enemy shipping. Two direct hits were observed—one on an enemy destroyer—and other bombs fell very close."

"Enemy aircraft attacked two of our bombing formations, and one hostile machine was driven down. All machines returned safely except one, which was forced to descend in Holland owing to a damaged engine, sustained in an engagement with enemy aircraft. Crew safe."

"Despite unfavourable weather conditions, anti-submarine, escort and hostile aircraft patrols have been maintained by aeroplanes, seaplanes, and airships in home waters during the same period. Enemy mines have been located and destroyed, and hostile submarines sighted and attacked. Allied and neutral shipping has also been escorted."

War Office, June 22nd.
 "Italian Front.—Between June 12th and 21st inclusive the Royal Air Force have destroyed 23 enemy aeroplanes. During the same period two of our machines have failed to return."

General Headquarters, June 22nd.
 "In spite of adverse weather conditions on the 21st inst., some artillery co-operation, photographic reconnaissances, and patrols were carried out by our aeroplanes. One hostile machine was destroyed. Two of ours are missing."

General Headquarters, June 23rd.
 "There was very little enemy activity in the air on June 22nd. Low clouds and high winds interfered with observation and photography, but work was carried out by our aeroplanes in co-operation with the artillery, and a number of hostile battery positions and other targets were engaged. There were no combats in the air, and none of our machines is missing. At night the weather improved, enabling our night-flying machines to show greater activity. During the 24 hours, 15 tons of bombs were dropped, Bapaume dump, railway stations at Armentières, Steenwerke, and Bac St. Maur, and Bruges Docks being heavily attacked by our machines."

General Headquarters, June 24th.
 "In the strong winds and low clouds of the 23rd inst. our aeroplanes carried on reconnaissance work and artillery co-operation with difficulty. There was little air fighting. One hostile machine was destroyed during the day and two of our machines failed to return. Five tons of bombs were dropped by us during the day and fifteen tons on the following night, over six tons falling on the sidings and stations at Cambrai with good effect. One of our night flying machines is missing."

French.
 "Salonica.—Two enemy aeroplanes were brought down."

Paris, June 16th.
 "During the last five days 32 enemy machines have been brought down or forced to land. In addition four German aeroplanes were brought down by the anti-aircraft defences, and three captive balloons were set on fire. During the same period 22 tons of bombs were dropped, both by day and night, on the railway stations of Soissons, Roye, Nesles, and Chaulnes."

"Salonica.—British airmen bombarded the stations on the Seres-Drama line and caused a fire at Furka (west of Lake Doiran)."

Paris, June 19th.
 "On June 18th, in spite of the cloudy weather, our crews brought down or put out of action six German aeroplanes and set fire to a captive balloon. Our bombers dropped 10 tons of projectiles during the night of the 18th-19th on railway stations, cantonments, and bivouacs in the region of Villers-Franqueux, Favrolles and Fismes."

"Salonica.—Allied airmen carried out numerous bombardments. British airmen in addition brought down three enemy machines."

Incidents of the Piave Battle.

MR. G. WARD PRICE, writing from the Italian headquarters, in an account of the fighting on the Piave, under date June 20th, said:—

"The bridges over the Piave are so constantly cut by shell-fire that the Austrians are actually having to use aeroplanes to bring supplies across the river."

Paris, June 20th.
 "Salonica.—Two enemy aeroplanes were brought down, one by our artillery, the other by our aircraft, which also set on fire a balloon to the north of Ghevelgi."

Paris, June 22nd.
 "An enemy aeroplane has been brought down."

Paris, June 24th.
 "During yesterday five enemy aeroplanes were brought down or forced to land in their own lines in a damaged condition. Fifteen tons of projectiles were dropped on enemy aerodromes in Picardy and on the Aisne, as well as on bivouacs in the region Chaulnes-Montdidier. Captain Doullin brought down his 20th machine. Captain de Sevin accounted for his 10th."

U.S.A.
 "Last night our airmen were again successful in bombing the railway yards and tracks at Conflans."

Italian.
 "Our own and Allied airmen are taking a strong part in the battle by bombarding the crossing points on the Piave and attacking the enemy's massed troops with machine-gun fire. Thirty-one enemy aeroplanes have been brought down."

Rome, June 16th.
 "The aviation service has continued to take a very valid part in the fighting, notwithstanding unfavourable flying conditions."
 "Forty-four enemy machines have been brought down during the last two days."

Rome, June 17th.
 "The airmen tirelessly continued to participate effectively in the battle (along the Piave) notwithstanding heavy rain."

Rome, June 18th.
 "The enemy, followed up by us, defended himself desperately, and at every yard the ground was the theatre of epic struggles in which our own and Allied aeroplanes took part from on high, bombarding with 15,000 kilos of bombs and firing tens of thousands of machine-gun rounds on the vulnerable targets offered by the enemy troops forced into a narrow space on the right bank of the river. The battle is continuing bitterly, and the enemy, so as to preserve some of the initial advantages gained, takes no heed of the immense losses which our rifle fire, guns, and airmen have been inflicting on him these five days."

Rome, June 20th.
 "From dawn to sunset our own and Allied airmen and the seaplanes of the Italian Royal Navy, all active in chasing, in not allowing the enemy to approach our lines, in observation for the other arms, in carrying out bombardments and attacking the enemy with machine-gun fire, participated uninterruptedly and effectively in the battle. Fourteen enemy machines were brought down. One of our airmen did not return. Along the whole front the observation balloons co-operated usefully and courageously."

Rome, June 21st.
 "The airmen, in spite of adverse atmospheric conditions, carried on their usual activities. Enemy machines were brought down. For the first time our airmen and those of the Allies had as their companions American pilots, who as soon as they arrived on our front, wished to participate in the battle. The valiant Maj. Baracca, who had achieved his 34th victory in the air, did not return on the 19th inst. from an heroic war flight."

Rome, June 22nd.
 "Ten enemy aeroplanes and three captive balloons were brought down."

Rome, June 23rd.
 "Our own and Allied airmen continued the struggle with undiminished daring. Yesterday they also carried out big and effective bombardments on the immediate lines of communication of the enemy. Ten enemy machines were brought down. Lieut. Flavio Baracchini gained his 29th victory."

"The aerial losses suffered by the enemy since June 15th amount to 95 aeroplanes and six captive balloons."

German.
 "Lieut. Meckhoff has obtained his 34th aerial victory, Lieut. Udet his 30th, and Lieut. Kirschstein his 25th and 26th."

Berlin, June 16th.
 "Eight enemy aeroplanes and eight captive balloons were brought down yesterday."

Berlin, June 17th.
 "Yesterday 23 enemy aeroplanes and three captive balloons were shot down. Capt. Berthold achieved his 35th aerial victory, and Lieut. Veltjens his 22nd."

Berlin, June 20th.
 "Capt. Berthold achieved his 36th aerial victory."

Berlin, June 21st.
 "The large, clearly-marked hospital buildings in the valley of the Vesle, between Breuil and Montigny, which were formerly used by the French, have recently twice been the objective of enemy air raids."

Berlin, June 22nd.
 "An enemy air raid on Bruges has caused casualties to the population. Lieut. Loewenhardt has gained his 28th aerial victory."

Berlin, June 24th.
 "Lieutenant Udet attained his 31st and 32nd aerial victories; First Lieutenant Goehring his 20th and 21st."

Austrian.
 "At the repulse of an aerial attack made on Cattaro an English airman was shot down by our naval aeroplanes."

Vienna, June 14th.
 "As always, our brave sappers and our battle and chasing planes have played a distinguished rôle in the battles of the last few days."

Vienna, June 17th.
 "The co-operation in the fighting of battle airmen and of the reconnoitring service are mentioned in the troop reports with special praise. Among our battle airmen Capt. Brumonowsky achieved his 33rd and 34th aerial victories. 1st Lieut. von Linke Crawford his 25th, and 1st Lieut. Fiala his 23rd."

Vienna, June 22nd.
 "Between the 15th and the 20th inst. the enemy lost 42 aeroplanes owing to the activity of our airmen and of our anti-aircraft guns. He also lost four captive balloons."

Turkish.
 "On June 11th an attack by an enemy camel corps detachment was made against the Hedjaz railway, and was repulsed by our posts. Enemy caravans and camps were bombarded by our airmen. One enemy machine was shot down on June 8th."

"Last evening I watched the Italian and British airmen as they bombed and fired on the Austrians on the slopes of the Montello. One British airman, I heard later, having dropped all his bombs and emptied every drum of cartridges, came down to within a score or two feet and pelted with his spare parts and the tools in his repair outfit the Austrians cowering under the banks and among bushes."

AVIATION IN PARLIAMENT.

Anti-Aircraft Corps.

MR. PHILIP FOSTER, in the House of Commons on June 18th, asked the Under-Secretary of State for War whether any and, if so, what recognition has been accorded to the Royal Naval Volunteer Reserve Anti-Aircraft Corps since 1914 for their services in the defence of London from aerial attacks?

MR. MACPHERSON: Yes, sir; one officer has been appointed a Companion of the Order of St. Michael and St. George, and twelve officers and other ranks have been "mentioned in despatches." The names of six others have been brought to the notice of the Secretary of State for special services rendered, and these were published in a *communiqué* from the War Office dated December 21st last.

MR. FOSTER: Would it not be possible to grant war chevrons to these men?

MR. MACPHERSON: I do not think anybody has been given a chevron who has merely served at home. Chevrons in the past have been invariably given for service abroad.

Enemy Air Raids (Compensation).

SIR W. PEARCE asked the Chancellor of the Exchequer if the French Government have accepted the same liability for dependants of air-raid victims as of military casualties; if dependants in cases of death in this country are being offered lump sum payments in commutation of their claims by reference to the precedent of the Workmen's Compensation Act; and if he will order no lump sum payments to be made in future in any case where a local committee advises that it will be insufficient to provide such permanent maintenance as may be necessary?

MR. BONAR LAW: I have no information about the practice of the French Government. The dependants of persons killed in enemy air raids are receiving *ex gratia* from public funds compensation generally on the principles of the Workmen's Compensation Act, 1906, in accordance with the pledge which I gave in the House of Commons on June 28th last. I am not prepared to give the instructions suggested in the last part of the question.

Royal Air Force (Propaganda).

MAJOR DAVIES asked the Under-Secretary of State for War (1) whether the German Government has threatened punitive measures on all British airmen falling into their hands who are discovered to be in possession of printed matter for propaganda purposes; if so, whether the threats will have any influence on our activities in this direction; and what retaliatory steps the War Office proposes to take in the event of any punishment being inflicted upon our airmen by the German military authorities; and (2) whether German Gothas have recently been brought down near Paris carrying leaflets and other printed matter; and what steps are being taken to distribute propaganda and leaflets in enemy countries through the medium of the Air Service?

MR. MACPHERSON: I would refer my hon. and gallant friend to the reply given by my right hon. friend the Chancellor of the Exchequer on the 13th inst., to which I can add nothing.

Enemy Air Raids (Compensation).

MR. HINDS asked the President of the Board of Trade whether compensation is paid under Government aircraft insurance policies in respect of damage caused by maroons used for warnings of air raids?

MR. WARDLE: No, sir. There is no liability under the policy. I understand, however, that claims for damage of this kind in the Metropolitan Police district are dealt with by the Receiver for that district, whose address is New Scotland Yard.

R.A.F. Acceptance Parks.

MAJ. DAVIES, on June 19th, asked the Under-Secretary of State to the Air Ministry the total number of aviation acceptance parks constructed and partly constructed; how many of these have been used for the original purpose for which they were intended; and how many are used partly for the acceptance of aircraft and partly for other work; and whether, in the case of Loch Doon, the Air Board cannot take any disciplinary measures because the officers in question are under the jurisdiction of other Departments of State?

The Under-Secretary of State to the Air Ministry (Major Baird): I regret that it is not possible, in the public interest, to give the figures asked for in the first part of the question. As regards the second and third parts, all the acceptance parks which have been completed are in use as originally intended, and all those which remain to be completed will be required for the erection or storage of aircraft. In regard to the last part of the question, I regret that I cannot add anything to the answer previously given.

R.A.F. Officers' Uniforms.

COL. YATE, on June 20th, asked the Under-Secretary of State to the Air Ministry whether the officers of the Royal Air Force are about to be ordered to provide themselves forthwith with light blue uniforms instead of continuing to wear the recently introduced khaki Royal Air Force uniform until the end of the war, as had been hitherto understood; and, if so, considering the expense that will be inflicted on all young officers who have provided themselves with the khaki uniform, the Air Board will consider the advisability of postponing the issue of the proposed orders?

The Parliamentary Secretary to the Air Ministry (Major Baird): This matter is under consideration. If the change be decided upon, officers will not be

ordered to provide themselves with the new uniform until their present uniform is worn out.

COL. YATE: Is it not the case that this new khaki uniform was only brought out in March last; and officers were then told that it would last for the time of the war, and will it not be unfair to bring in another new uniform before the end of the war?

MAJOR BAIRD: Whatever new uniform is brought in—if one be brought in—it will not change the fact that their present uniform, whatever it is, will be worn out before they get a new one.

MR. HARCOURT: Has the hon. gentleman considered the point that naval officers in large numbers have already got uniform of military khaki, Royal Air Force uniform, and naval dark blue uniform; and has he considered whether the introduction of another uniform is justified on public grounds?

MAJ. BAIRD: The whole of this question has been gone into. It is very important from the point of view of the *moral* and *esprit de corps* of the force, and if it turns out to be necessary and desirable that a new uniform should be decided upon for the corps as a whole, these officers will not be called upon to incur expense in buying the new uniform until they have worn out the old uniform.

MR. HARCOURT: Will the hon. gentleman consider the point of public expenditure before any further change is brought into force?

MAJ. BAIRD: That point is being considered. Expenditure does not arise. It does not cost more to clothe a man in blue than it does to clothe him in khaki. As regards the officers, they will not be called upon to get new uniform until their old uniform is worn out.

GEN. SIR IVOR PHILLIPS: If the suggestion of the new uniform is brought into force, will not the charge fall upon the officers? Is the hon. gentleman not aware that officers like, naturally, to be smart, and, in order to uphold the reputation of the force, they will have to buy the new uniform—therefore, they will be put to the extra charge?

MAJ. BAIRD: I am afraid I cannot add anything to the answer I have given. The whole question arises out of the need in creating a new force of establishing an *esprit de corps* suitable to that force. That cannot be done unless they have suitable uniform.

SIR I. PHILLIPS: Will the hon. gentleman see that this is done at the expense of the State and not at the expense of the officer?

COL. ASHLEY: Has the hon. gentleman considered whether a light blue uniform will fade at once? Why is it necessary to have expensive gold braid instead of cord?

MAJ. BAIRD: Though gold braid may sound expensive, it does not turn out so in practice.

MR. PRINGLE: Has the Department given evidence before the Luxury Committee?

MAJ. BAIRD: I do not think that is a fair question to put. It is not a question of luxury, but a question of the fighting efficiency of the force.

Aerodrome Construction (Wages).

MR. PERO asked if any steps are being taken to obtain an adequate return in labour for the high wages paid to men engaged in the construction of aerodromes?

MAJ. BAIRD: Everything possible is being done to make the best use of the labour available.

Air Ministry (Women Employees).

MR. DUNCAN asked the Under-Secretary of State to the Air Ministry whether he is aware that the lady supervisor over the women cleaners employed at the Air Board, Hotel Cecil, Strand, has threatened these women with dismissal if they become members of a trade union; and whether he will take steps to see that this practice is ended as speedily as possible?

MAJ. BAIRD: I regret to say that the facts are substantially as stated in the question. The action referred to was due to a misapprehension on the part of a subordinate official, and the necessary instructions are being issued to put the matter right.

MR. DUNCAN asked the Under-Secretary of State to the Air Ministry whether he is aware that the women employed at No. 1 Stores, Royal Air Force, Greenwich, S.E. 13, have been informed by the officer in command that unless they join either the Women's Army Auxiliary Corps or the Women's Royal Naval Service no increases in wages will be given them; whether he is aware that in most cases these women are married and that either their husbands or sons are at present serving with the Colours; and whether he will cause enquiry to be made with a view to the prevention of a repetition of this kind of thing?

MAJ. BAIRD: Women employed as civilian subordinates by all Royal Air Force units have been invited to join the Women's Royal Air Force, the advantages of which have been fully explained to them. Enrolment in the Women's Royal Air Force is entirely voluntary, and civilian subordinates at present employed have complete freedom to join at any time, subject to passing the necessary medical examination. Women who do not wish to join are retained in their employment at existing rates of pay, which in some cases are higher than those paid to members of the Women's Royal Air Force for similar employment. Any increases of pay by way of war bonus officially authorised for civilian subordinates are payable to women who elect to remain in the employment of units of the Royal Air Force as civilian subordinates.



An American "Ace" Missing.

THE American pilot, Lieut. Bayliss, who had eleven Boche machines to his credit, was reported missing on June 17th. During an aerial fight his machine was seen to catch fire and come down in the German lines. It is hoped, however, that he was able to land safely.

The Death of Major Baracca.

ITALY'S greatest airman, Major Francis Baracca, has, at last, it seems, met a gallant end, says Mr. G. Ward Price, in a despatch from Italian Headquarters. On his fourth outing of the day he was bombing a bridge over the Piave at 500 ft. above the wooded Montello Hill. Suddenly his machine, on which was painted the prancing red horse he has made famous, heaved over and fell gliding on a wing. The enemy's machine-guns streamed incendiary bullets at it as it drifted groundwards, and when it stranded close to Nervesa Abbey the wreck burst into flames. It is doubtful if Baracca could have survived. He was 30 years of age and

had been in the Italian Flying Corps since 1912. He had brought down 34 enemy machines, most of them within the last six months.

Killed After Escape.

FLIGHT LIEUTENANT HENRI DE PRACONTAL, who recently escaped from Germany, has been killed as the result of an accident to an observation balloon, says the *Echo de Paris*.

Japanese Flyer Killed in France.

It was reported from Paris on June 21st that the machine of Sergeant Koboyaske, a Japanese who enlisted voluntarily in the French Army, caught fire at a height of 3,000 metres. The pilot jumped from the burning wreck and fell in the French lines.

Noted Hun Captured.

WÜSTHOFF, a German airman, placed in the same class as Immelmann and Richthofen, has been brought down in the French lines wounded, and has been taken prisoner.

THE AIRCRAFT WORKERS' SPORTS.

STRIKING as was the success last year of the Aircraft Workers' Sports organised by the Y.M.C.A., the meeting held last Saturday at the Stamford Bridge track was even better. Altogether the entries aggregated 1,600 and thirty-one firms

The winners of the various events were:—
100 yards Boys' Handicap.—A Smeed (Vickers, Crayford).
100 yards Flat (Aircraft Supplies Challenge Cup).—West (R.A.E.), time 10 $\frac{1}{4}$."

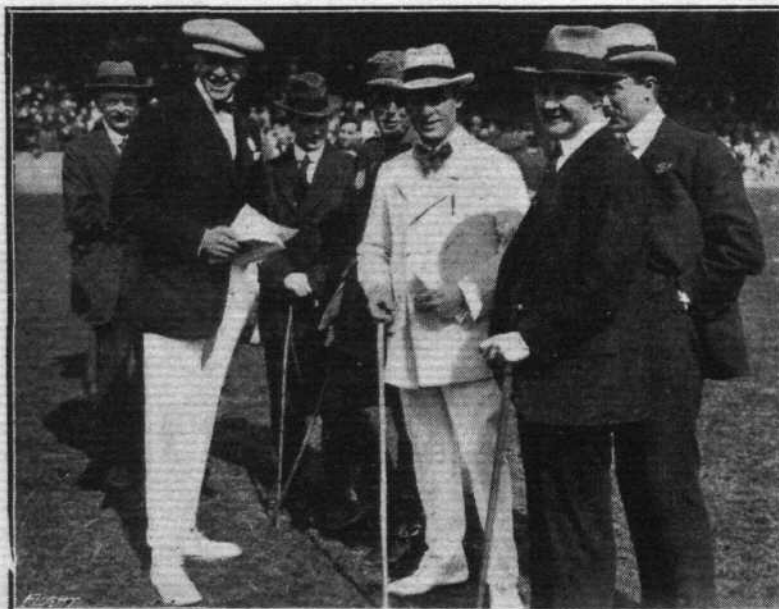
At the Aircraft Workers' Sports.

—From left to right: Brig.-Gen. W. Alexander, C.M.G., D.S.O.; General Sir Bindon Blood, K.C.B.; Mr. Handley Page, C.B.E.; Major F. R. McMahon, D.S.O.; and Mr. Watkins, of the Triplex Safety Glass Co.



were represented. The actual competitors totalled 700, made up of 330 men, 290 ladies, and 80 boys. Although the programme was necessarily a long one, the arrangements had been carefully thought out, and by skilful organisation it was found possible to finish within five minutes of the scheduled time, an achievement of which the officials, and especially Mr. J. T. Clark, the Hon. Secretary, may well be proud. Last year the sports enabled a cheque for £200 to be handed over to the Y.M.C.A. Fund for Disabled Sailors' and Soldiers' Hostels and Trade Colonies, but it is hoped that an even better result will be attained this year. There was a fine array of prizes, which were presented by Brig.-Gen. W. Alexander, C.M.G., D.S.O., of the Air Ministry. Competition was keen throughout the afternoon and one of the most popular wins was that of Miss White (Darracq's) who for the third year in succession won the Ladies' 60 yards flat race.

100 yards Veterans' Handicap ("FLIGHT" Cup).—Reading, time 12 $\frac{1}{4}$.
220 yards Flat (Cotton Challenge Trophy).—Aggersburg (Whiteheads'), time 24 $\frac{1}{2}$.
440 yards Flat (Whitehead Challenge Trophy).—Howell (Darracq).
880 yards Flat (Sopwith Challenge Cup).—Hodge (Vickers, Crayford).
One Mile Flat (Triplex Trophy).—Hodge (Vickers).
2 Miles Walk (Central Aircraft Co. Prize).—Theobald (Vickers).
High Jump (Handley Page Prize).—Smith (Napier) 5 ft. 4 in.
Long Jump (Darracq Silver Cup).—Hicks (Handley Page), 17 ft. 10 in.
Inter-Works Tug-of-War (Aircraft Manufacturing Co. Challenge Trophy).—Sopwiths.



AT THE AIRCRAFT WORKERS' SPORTS.—Messrs. J. F. Inshaw of Auster's, Claude Grahame-White, Major Whitehead, Messrs. J. H. Whitehead, and R. Delpach of Triplex. On the right, Mr. G. A. Parsons of Palmer tyres, and Mr. Crossley of Darracq's.



AT THE AIRCRAFT WORKERS' SPORTS.—1. Start of the 880 Yards Flat. 2. Start of the Three Miles Cycle Race. 3. Some of the 5,000 spectators. 4. Three-legged Race; close quarters in rounding the bend. 5. Prizes for the competitors. 6. Ladies' Half-mile Walk. 7. A spill in the Sack Race, but the "spilled" recovered and won. 8. Ladies' 80 Yards Flat Race. 9. "Dressing" for the Ladies' Sack Race.



AT THE AIRCRAFT WORKERS' SPORTS.—1. Tug-of-War. The Napier team. 2. "Boat Race." 3. High Jump. H. Dixon, in spite of wounded arm, did well. 4. Finish of 60 Yards Ladies' Race. Miss F. White winning for third year in succession. 5. Veterans' finish for "FLIGHT" Cup. 6. A "spill" in Three-legged Race.

Inter-Works Relay Race.—Vickers, Crayford.
Sack Race, Women.—Miss Witham (A.M.C.).
Half-Mile Cycle (Auster Silver Cup).—McKaig (Hoopers).
Three Miles Cycle (Highgate Aircraft Co. Silver Cup).—Turner, (Inte Pro.) 8-36½.
Boat Race.—Handley Page.
Obstacle Race ("FLIGHT" Cup).—Hazell (Fairy Aviation Co.).
Ladies' 60 yards Flat (Cellon Challenge Rose Bowl).—Miss White (Darracq).
Ladies' 880 yards Walk (Aircraft Manufacturing Co. Prize).—Miss Chapple (Whiteheads).

Boat Race.—Howe (Central Aircraft).
Boys' Relay Race.—Vickers.
Three Legged Race.—Miss Carter (Whiteheads) and Mr. Higgins (Handley Page).

As we have already mentioned, there was a splendid display of prizes, and it was noticeable that the majority were examples of the craftsmanship of the Goldsmiths and Silver-smiths Co., some outstanding pieces being the trophies presented by the Aircraft Manufacturing Co., the Highgate Aircraft Co., the Triplex Co., Whitehead Aircraft, Cellon Ltd., Darracq Co., and also the two cups presented by "FLIGHT."

Changes at the M.O.M.

In consequence of the appointment of Sir Arthur Duckham to succeed Sir William Weir as member of the Munitions Council for Aircraft Production and member of the Air Council, it has become necessary to make a redistribution of the Departments of the Ministry immediately concerned.

The Departments forming the "Engines" Group have accordingly been reconstituted with the Trench Warfare and Munitions Inventions Departments, as a new group, to be termed the "Warfare" Group. The Minister of Munitions has appointed as member of Council for this group Brigadier-General the Right Hon. J. E. B. Seely, C.B., D.S.O., M.P., whose services have been lent to the Ministry by the Army Council.

In pursuance of the reorganisation of the Finance Group of Departments of the Ministry of Munitions the following principal appointments and promotions have been approved:

The Financial Secretary, Sir Laming Worthington Evans, Bt., M.P., will be assisted by three Assistant Financial Secretaries:—Mr. S. Dannreuther, C.B., Mr. J. H. Guy, and Sir Philip Henriques, K.B.E.

Mr. W. E. Mortimer is controller of Aircraft Finance, and Mr. T. D. Nicol is controller of Aircraft Contracts.

The Last Raid on London.

CONFIRMATION has now been received from German sources that the losses of the 3rd Bombing Squadron which visited London on May 19th-20th, were more severe than at first believed. Twenty-eight machines took part in the raid, says Reuter's correspondent with the British Army, and in addition to the seven accounted for, three were crashed on landing.

The Penguins.

THE "Penguins" (the Women's Royal Air Force) have moved their general inquiry office from Wellington Street, Strand, to Mason's Yard, Duke Street, St. James's, S.W. The enrolment of "mobile" women has now begun, and the immediate demand is for cooks, waitresses, and domestic workers.

The Polytechnic School of Engineering.

THE Hon. Sir Charles A. Parsons, K.C.B., M.A., LL.D., D.Sc., F.R.S., &c., &c., has kindly consented to fill the office of President of the Polytechnic School of Engineering, Regent Street, W., in succession to the late Mr. Charles Hawksley, past President of the Institution of Civil Engineers.

The first President of the School was Professor David Hughes, F.R.S., the founder of the Hughes medal of the Royal Society.

SIDE-WINDS.

THERE was a pleasant little function in a corner of the H.P. works on Monday when Mr. and Mrs. Handley Page were presented by the staff and employees with a silver tea service, a rose bowl, coffee pot and cigarette case as a souvenir of their recent marriage. Mr. Meredith was in the chair, and inspiring and enthusiastic speeches were made by Mr. Wade, shop steward, for the employees, and Mr. W. S. Hubbard for the staff. The sentiments expressed could hardly be better summed up than they were in the illuminated address which was read by Miss Dyter, the welfare superintendent:—

"We, the undersigned, representing the Staff, Foremen and other Employees of the Firm of Handley Page, Ltd., in appreciation of your high qualities as a man and as an employer of labour, and of your distinguished scientific and technical abilities as a designer and Constructor of Aircraft, DESIRE on this, the occasion of your Marriage, to express our felicitations on the happy event, our congratulations on the success in life to which you have attained, and our sincere and hearty good wishes for the future happiness and prosperity of your wife and yourself. As a token of the goodwill of all, we ask you to accept this silver tea service, and hope that it may serve to recall a happy memory."

It was a happy idea of Mr. Reg. Delpach—of Triplex fame—to entertain his staff and a few friends to an informal luncheon at the Florence Restaurant on Saturday last before going on to the Aircraft Workers' Sports at Stamford Bridge. It certainly proved a most auspicious start to a very pleasant afternoon.

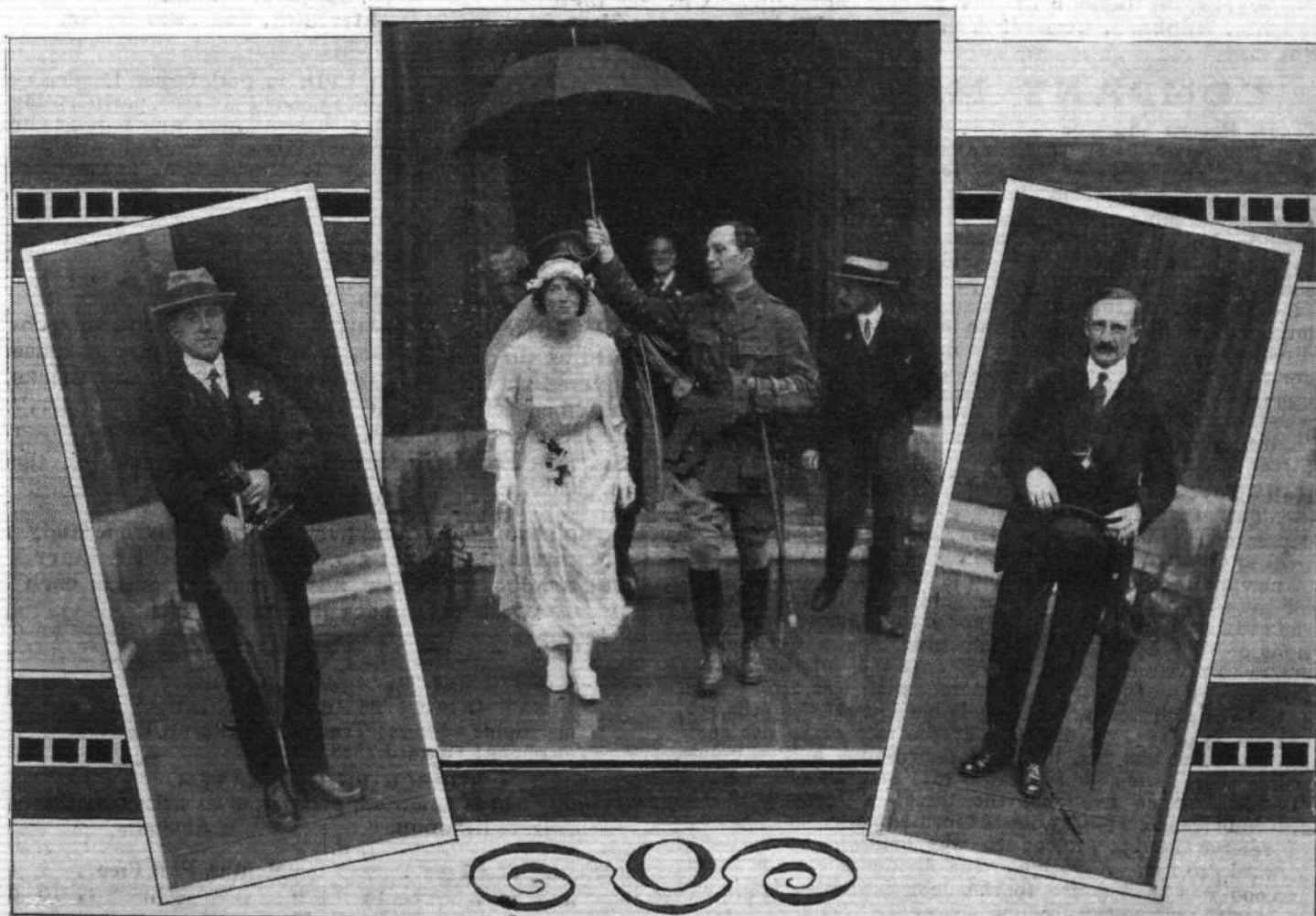
A CHANGE of name to note. The Super Aviation Co., Ltd., of Dudden Hill Lane, Willesden, N.W., have been making quite a name for themselves, but as it has been pointed out that there is a possibility that its title might prove an unwitting trespass on the province of another "Super" business, they have decided to change their name to the Sceptre Aviation Co. It may be added that the personnel of the directorate, the policy and methods of working, as also the address of the firm, remain unchanged.

MR. G. VIRGILIO is the moving spirit in the Virgilio Aircraft Co., of Olympia, Chichester, Sussex, which is making a speciality of wood work. Although Mr. Virgilio is best known as a pilot he has had a good deal of experience in construction work dating from his first efforts with Signor Caproni in Milan in 1908, and is acquainted with modern methods of aeroplane building, so doubtless he will be as successful on the practical side of aviation as he has been in piloting and instruction.

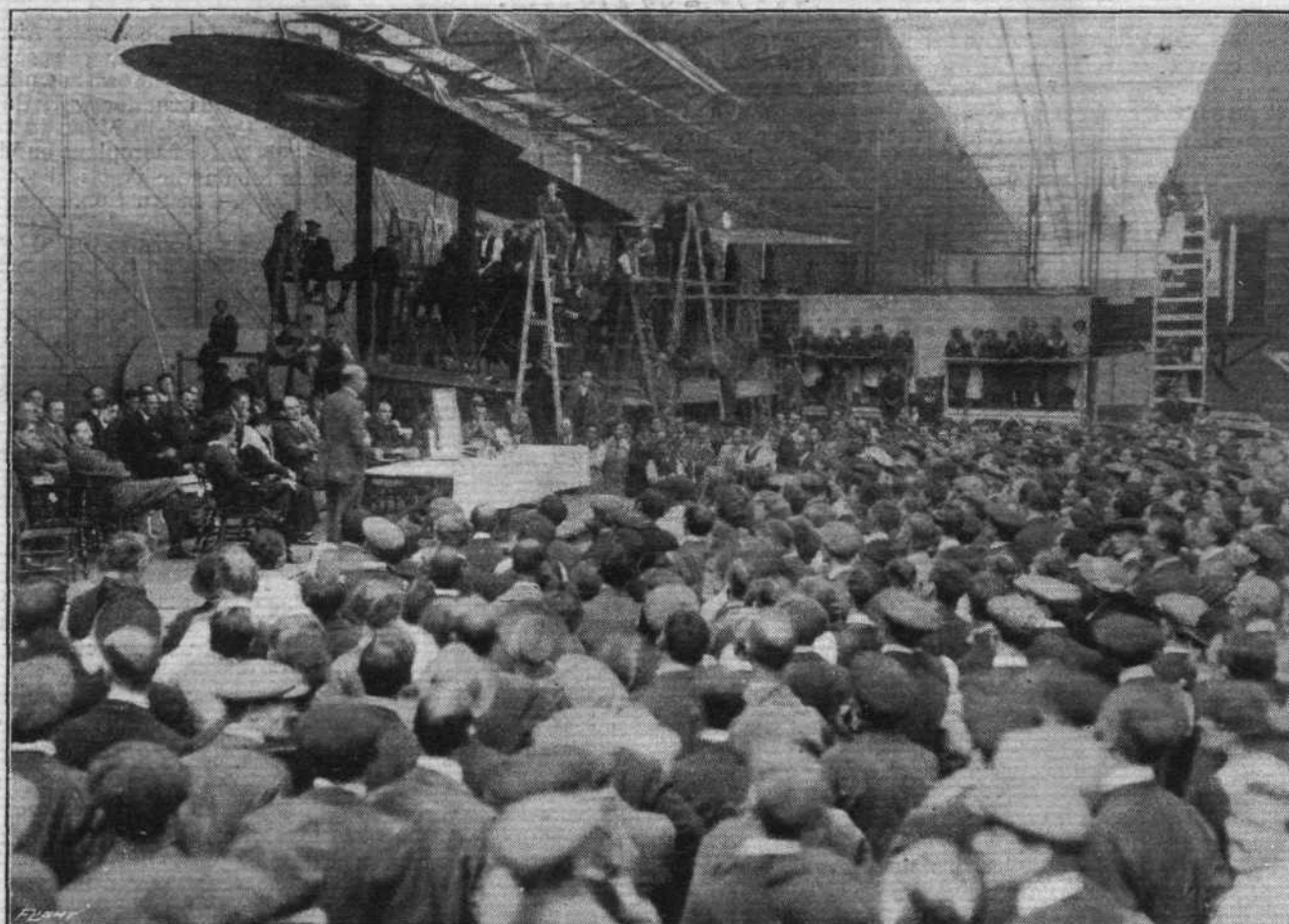
FROM Mr. A. J. Wallace Barr, of Cellon, Ltd., comes a very practicable idea in the form of a card disc shaped for attaching to the mouthpiece of the telephone. It is subdivided so that the name, exchange and number of those firms and friends who are constantly being called up may be jotted down, and will be always at hand when wanted. No doubt Mr. Barr will be pleased to send one to anyone writing to him at 22, Cork Street, London, W. 1.

THE London press recently reported the pathetic case of a nine-year-old orphan boy, son of a soldier recently killed at the front, who was dying in hospital, and whose life, it was thought, might possibly be saved by a liberal transfusion of blood from a healthy person. Many offers were immediately made, and after careful investigations and the analysis of a sample of blood Mr. Rowland Goodwin, of the Aviation Dept., of Messrs. C. C. Wakefield and Co., Ltd., the well-known makers of aero-engine and other lubricants, was selected for the experiment. The operation was performed last week, with apparently entirely satisfactory results. It is to be hoped a useful life has been saved, and Mr. Goodwin is to be congratulated on his prompt and willing sacrifice.

It will interest their many friends that the Aircraft Construction Co. have opened a Small Tools Department at Africa House, 44, 45, 46, Leadenhall Street, E.C. 3, where they will be able to deal with urgent enquiries for such items as milling cutters, slitting saws, taps, dies, twist drills, reamers, hacksaw blades, files, vices, chucks, grinding wheels, belting, bolts, nuts, &c. The phone call is Avenue 7782, while telegrams should be addressed "Yellebrath, Ltd., London."



The wedding at St. Margaret's, Westminster, of Lt. H. V. Roe and Miss Marie Carmichael Stopes, D.Sc., Ph.D. In the centre, the bride and bridegroom leaving the church; left, Mr. A. V. Roe off to carry on elsewhere; and right, Mr. F. O. S. Leak, Chairman of A. V. Roe and Co., who was also present.



Presentation to Mr. Handley Page, C.B.E., on Monday evening, by the staff and employees of the works, in honour of his recent marriage. On the platform are Mr. and Mrs. Handley Page, Mr. Hubbard, General Manager, Mr. Wade, one of the Shop Stewards, Mr. Meredith, and Miss Dyter, the Welfare Superintendent.

COMPANY MATTERS.

G. D. Peters and Co.

THE report of G. D. Peters and Co. for the half-year ended March 31st states that net profit amounts to £26,129; £14,010 was brought in, making £40,139. The directors recommend, subject to deduction of income-tax, a participating dividend on preference shares at the rate of 2 per cent. per annum for the six months and a dividend on ordinary shares at the rate of 12 per cent. per annum, to add to reserve fund £10,000 and to carry forward £20,139. In view of the large volume of business and the high cost of materials, the directors consider it advisable to increase the capital by the creation of an additional 100,000 shares of £1 each. If the issue be approved, the new shares will be issued as and when required for the purposes of the company.

Meeting, Institute of Chartered Accountants, Moorgate Street, E.C., 28th inst., noon.

Rolls-Royce, Ltd.

THE accounts of Rolls-Royce show, after providing for depreciation of buildings and plant, making provision towards writing down to estimated post-war value, and depreciation of new buildings, machinery and plant erected and installed for munitions of war purposes, and making provisions for the estimated amount payable under the Finance and Munitions of War Acts, and after charging repairs and replacements to revenue, a net profit of £142,056, for the year to October 31st, 1917, as compared with £82,640. With £43,115 brought forward, the available amount was £185,172, against £114,115. A dividend at the rate of 10 per cent. for the year, less tax, has been distributed, and fully-paid bonus shares were issued at the rate of a share for share. Of the balance available the directors recommend the following transfers:—£45,000 to income-tax account; £50,000 to reserve fund; £30,000 to war contingency account; forward £40,172. A year ago the dividend was the same; £20,000 was then added to the debt guarantee fund, and £30,000 to income-tax account.

NEW COMPANIES REGISTERED.

AERO ENGINE RECONSTRUCTION CO., LTD.—Capital £3,000, in £1 shares. Objects, to reconstruct, repair, or deal in engines for motor cars, aeroplanes, &c.

CELLON (RICHMOND), LTD., 22, Cork Street, London.—Capital £70,000, in 45,000 and 25,000 7½ per cent. participating cumulative preference of £1 shares. Acquiring part of the business carried on by Thomas Tyrer and Co., Ltd., at Stratford, E., and at Cellon Works, Richmond, S.W., as manufacturers of aeroplane dope and varnishes for Cellon, Ltd., and part of the business of Cellon, Ltd., relating to the sale of such dope and varnishes, &c. First directors: A. J. A. Wallace Barr, R. E. P. Grosscurth and P. H. Chambers.

NOTICE TO ADVERTISERS.

IN order that "FLIGHT" may continue to be published at the usual time, it is now necessary to close for Press earlier. All Advertisement Copy and Blocks must be delivered at the Offices of "FLIGHT," 36, Great Queen Street, Kingsway, W.C. 2, not later than 12 o'clock on Saturday in each week for the following week's issue.

If you require anything pertaining to aviation, study "FLIGHT'S" Buyers' Guide and Trade Directory, which appears in our advertisement pages each week (see pages liv, lv, and lvi).

FLIGHT

and The Aircraft Engineer.

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